

**A. BIOGRAPHICAL INFORMATION****1. Personal**

*Raquel Urtasun*  
 Department of Computer Science  
 10 King's College Road  
 Toronto ON M5S 3G4  
 phone: 416-946-8482

**2. Degrees**

- Sep. 2000- June 2006 Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland  
 PhD in Computer Science, June 2006  
 Thesis: *Motion Models for Robust 3D Human Body Tracking*  
 Advisors: Pascal Fua and David Fleet
- Sep. 1994- June 2000 University of Navarra (UPNA), Pamplona, Spain  
 B.S. in Telecommunication Engineering

**3. Employment**

- Nov 2015 – Present* **Canada Research Chair**  
 University of Toronto
- July 2016 – Present* **Associate Professor**  
 University of Toronto
- Jan 2014 – June 2016* **Assistant Professor**  
 University of Toronto
- Sep 2009 – Jan 2014* **Assistant Professor**  
 Toyota Technological Institute at Chicago (TTI Chicago)
- Feb 2010 – June 2010* **Visiting Professor**  
 ETH Zurich
- Jan 2008 – Sep 2009* **Postdoctoral Research Scientist**  
 UC Berkeley EECS & ICSI
- Oct 2006 – Aug 2008* **Postdoctoral Associate**  
 MIT Computer Science and Artificial Intelligence Laboratory
- Fall 2000 – Summer 2006* **Research Assistant**  
 Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland
- Summer 2004, 2005, 2006* **Visiting Scientist**  
 University of Toronto

- Spring 2000 – Fall 2000*    **Research Assistant**  
Ecole National Superieure de Telecommunications (ENST), Paris, France
- Fall 1999 - Spring 2000*    **Research Assistant**  
Institut EURECOM, Sophia Antipolis, France.
- Fall 1998 - Spring 1999*    **Research Assistant**  
Universidad de Navarra (UPNA), Pamplona, Spain

#### 4. Honours

- Feb 2017*            **NSERC EWR Steacie Memorial Fellowship**  
Awarded to the top researchers in Canada in science and engineering (6 annually)
- Jan 2017*            **NVIDIA AI Lab Award**
- Dec 2016*            **Amazon Faculty Research Award**
- April 2016*            **NVIDIA Pioneers of AI Award**
- February 2016*    **Google Faculty Research Award**
- April 2015*            **Ministry of Education & Innovation Early Researcher Award (ERA)**
- October 2015*        **Canada Research Chair (CRC)**
- April 2015*            **NSERC Discovery Accelerator Supplement**
- February 2015*    **Google Faculty Research Award**
- March 2014*            **Connaught New Researcher Award**
- June 2013*            **Best Paper Runner Up Award at CVPR**  
Computer Vision and Pattern Recognition (CVPR)
- June 2011*            **Best reviewer award**  
Computer Vision and Pattern Recognition (CVPR)
- Fall 2000*            **Postgraduate Fellowship**  
Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland
- Fall 1999*            **Graduate Fellowship**  
Institut EURECOM, Sophia Antipolis, France
- Fall 1998*            **Graduate Fellowship**  
Spanish Ministry of Education and Culture

## B. ACADEMIC HISTORY

### 5. A. **Research Endeavours**

I have made a number of high-impact contributions in the fields of computer vision, machine learning, robotics and remote sensing. Many of these contributions have had a lasting impact, generating entirely new lines of research, and have found their way into practical applications. I publish widely in the leading venues of computer vision and machine learning, averaging more than 10 articles a year. My work is extensively cited as well – I have an H-index of 48 and an i-10 index of 90; a total of approx. 8,000 citations; and I currently receive more than 2,300 citations per year. Among my research directions with highest impact:

**Visual Perception for Autonomous Driving:** I have developed the KITTI benchmark, which has been instrumental in making autonomous driving open to the vision and robotics communities. KITTI has had a huge impact, receiving around 20,000 downloads since its creation three years ago. More than 300 groups across the world including academia (e.g., Stanford, MIT, CMU, ETH) and industry (e.g., Baidu, Apple, Samsung, Mitsubishi, Honda, Toyota, Daimler) are actively participating in the challenges. I pioneered the development of modern visual perception algorithms for autonomous driving, including efficient slanted plane methods for low-level vision (i.e., stereo, flow) as well as holistic models for scene understanding, which can reason about the traffic situation, the layout as well as the 3D position of the cars and their intention. I have also developed a low-cost self-localization approach that has higher precision than GPS, and that unlike existing systems (e.g., Google car), does not require a model of the visual/geometric properties of the world. This work was the recipient of the Best Paper Runner-Up award at CVPR 2013. My work on 3D object detection is currently the state-of-the-art on KITTI, outperforming all competitors by a large margin. I have also opened a new research direction on automatically creating maps at a world scale from both aerial and ground images. I have also transferred several algorithms to Toyota and Mitsubishi, which run in their self-driving cars.

**Deep Structured Models:** Structure prediction algorithms assume a log linear model, and therefore can only learn a linear combination of potential functions. This limits their ability to learn complex representations, and instead one needs to hand design good potential functions. Recently, deep learning methods have achieved state-of-the-art results in many tasks, outperforming competitive methods by a large margin. Deep neural networks can, however, be even more powerful when combined with graphical models in order to capture the statistical dependencies between the predictive output variables. Towards this goal, in the past two years I have developed efficient learning algorithms for deep structured models, which are capable of learning deep non-linear functions taking into account the dependencies encoded in the graphical model. Deep structured models are an extremely exciting new research direction as it enables us to encode prior knowledge into the problem at hand, while learning the features from scratch. Furthermore, it allows us to learn richer representations to solve more complex tasks, beyond classification and regression. This is key to the success of holistic models in autonomous systems.

**Efficient Distributed Learning and Inference in Graphical Models:** My work on Markov random fields provides both strong theoretical underpinnings and practical methods for both learning and inference in the context of supervised data, weak labels and the active learning scenario. I have developed a range of learning and inference algorithms that can handle graphs with billions of edges by distributing memory and computation on a cluster. Importantly, they are guaranteed to converge and to retrieve the same solution that they would if they were run on a single computer. These algorithms have been used in a wide variety of applications to produce state-of-the-art results.

**Integration of Vision and Language:** My work on text and images have lead to principled approaches to leverage complex sentential descriptions of images to perform better visual scene understanding, as well

as to perform semantic video retrieval when dealing with complex queries. I have also developed new neural language embeddings that are able to capture the semantics of full sentences as well as asymmetric properties such as entailment.

My impact extends beyond the research community: I strongly believe in putting my algorithms into practice through industry engagement (e.g., collaboration with Toyota, Mitsubishi, Samsung). My contributions have also been recognized with several awards, including: an NSERC EWR Steacie Memorial Fellowship (awarded to the top 6 researchers in Canada across science and engineering), an NVIDIA Pioneers of AI Award, a Connaught New Researcher Award, two Google Faculty Research Award, an Amazon Research Award, a Ministry of Research & Innovation Early Research Award, an NSERC Discovery Accelerator Supplement, and the CVPR 2013 best paper runner-up. Furthermore, I have been recently nominated as Canada Research Chair (CRC) in Machine Learning and Computer Vision. NVIDIA has recently nominated my lab as an NVIDIA AI lab (NVAIL). My leadership is also demonstrated by the fact that in my two years at the University of Toronto I have raised more than four million dollars for my research. I have had many leadership and service roles. I have been area chair of top conferences 21 times. I believe I am the only researcher that has been area chair of all top computer vision (ICCV, CVPR, ECCV), machine learning (NIPS, ICML, UAI) conferences and robotics (ICRA). I will be serving as program chair of CVPR in 2018. I have also served as workshop chair of NIPS and CVPR, tutorial chair of CVPR and on the NIPS best paper award committee. Finally, I am a member of the Editorial Board of the International Journal of Computer Vision (IJCV).

## C. SCHOLARLY AND PROFESSIONAL WORK

### 6. Refereed Publications

I have published 13 journal papers and 99 conference papers, 76 of which were with my students. I have underlined my students and postdocs in the list of authors. In my field, the last author indicates who did most of the supervision. I have also given 3 tutorials at major conferences (i.e., ICCV and CVPR). I would like to emphasize that in my field conference papers are more important than journals, as their acceptance rate is lower, typically 15 – 25%. It is also important to note that only a handful of papers are presented as oral in these conferences, typically 2 – 5%; 26 of my 67 conference papers were presented as orals. This is an extraordinary large number. Furthermore, in 2013 I got the best paper runner-up for my work on self-localization.

#### A. Articles

##### Journal Papers

- X. Chen, K. Kundu, Z. Zhang, H. Ma, S. Fidler and R. Urtasun, '3D Object Proposals using Stereo Imagery for Accurate Object Class Detection', *Transactions of Pattern Analysis and Machine Intelligence (PAMI)* 2017
- T. Hazan, A. Schwing and R. Urtasun, 'Blending Learning and Inference in Conditional Random Fields', *Accepted to Journal of Machine Learning Research (JMLR)* 2016
- M. Brubaker, A. Geiger and R. Urtasun. 'Map-Based Probabilistic Visual Self-Localization', *Transactions of Pattern Analysis and Machine Intelligence (PAMI)* 2016
- R. Mottaghi, S. Fidler, A. Yuille, R. Urtasun and D. Parikh. 'Human-Machine CRFs for Identifying Bottlenecks in Holistic Scene Understanding', *Transactions of Pattern Analysis and Machine Intelligence (PAMI)* 2016

- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Distributed Algorithms for Large Scale Learning and Inference in Graphical Models', *Transactions of Pattern Analysis and Machine Intelligence (PAMI)* 2015
- A. Geiger, M. Lauer, C. Wojek, C. Stiller and R. Urtasun. '3D Traffic Scene Understanding from Movable Platforms', *In Transactions of Pattern Analysis and Machine Intelligence (PAMI)* 2013
- A. Geiger, P. Lenz, C. Stiller and R. Urtasun, 'Vision meets Robotics: The KITTI Dataset', *In International Journal of Robotics Research, (IJRR)* 2013.
- A. Kapoor, K. Graumann, R. Urtasun, T. Darrell, 'Gaussian Processes for Object Categorization', *In International Journal in Computer Vision, (IJCV)* 2010.
- R. Urtasun, D. J. Fleet and P. Fua, 'Temporal Motion Models for Monocular and Multiview 3D Human Body Tracking', *Computer Vision and Image Understanding, (CVIU)* 2006.
- L. Herda, R. Urtasun and P. Fua, 'Hierarchical Implicit Surface Joint Limits for Human Body Tracking', *Computer Vision and Image Understanding, (CVIU)* 2005.
- R. Urtasun, P. Glardon, R. Boulic, D. Thalmann and P. Fua, 'Style-based Motion Synthesis', *In Computer Graphics Forum (CGF), Vol. 23, number 4 pp 799-812. December 2004.*
- L. Herda, R. Urtasun, P. Fua, A. Hanson, 'Automatic Determination of Shoulder Joint Limits using Quaternion Field Boundaries', *International Journal of Robotics Research (IJRR)*, 22(6): 419 - 436, 2003.
- P. Dokladal, I. Bloch, M. Couprie, D. Ruijters, R. Urtasun and L. Garnero, 'Topologically Controlled Segmentation of 3D Magnetic Resonance Images of the Head by using Morphological Operators', *Pattern Recognition*, 36(10):2463 - 2478, 2003.

#### Refereed Conference Papers

- M. Ren, R. Liao, R. Urtasun, F. H. Sinz and R. Zemel 'Normalizing the Normalizers: Comparing and Extending Network Normalization Schemes', *In International Conference on Learning Representations, (ICLR), Toulon, France, May 2017*
- W. Ma, S. Wang, M. A. Brubaker, S. Fidler and R. Urtasun 'Find Your Way by Observing the Sun and Other Semantic Cues', *In International Conference on Robotics and Automation (ICRA), Singapore, May 2017*
- S. Wang, S. Fidler and R. Urtasun, 'Proximal Deep Structured Models', *In Neural Information Processing Systems (NIPS), Barcelona, Spain, December 2016*
- R. Liao, A. Schwing, R. Zemel and R. Urtasun, 'Learning Deep Parsimonious Representations', *In Neural Information Processing Systems (NIPS), Barcelona, Spain, December 2016*
- W. Luo, Y. Li, R. Urtasun and R. Zemel, 'Understanding the Effective Receptive Field in Deep Convolutional Neural Networks', *In Neural Information Processing Systems (NIPS), Barcelona, Spain, December 2016*
- M. Bai, W. Luo, K. Kundu and R. Urtasun, 'Exploiting Semantic Information and Deep Matching for Optical Flow', *In European Conference in Computer Vision (ECCV), Amsterdam, Netherlands, October 2016*
- H. Chu, S. Wang, R. Urtasun and S. Fidler, 'HouseCraft: Building Houses from Rental Ads and Street Views', *In European Conference in Computer Vision (ECCV), Amsterdam, Netherlands, October 2016*
- Y. Song, A. Schwing, R. Zemel and R. Urtasun, 'Training Deep Neural Networks via Direct Loss Minimization', *In International Conference in Machine Learning (CIML), New York, June 2016*
- W. Luo, A. Schwing and R. Urtasun 'Efficient Deep Learning for Stereo Matching' *In Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, June 2016*

- M. Tapaswi, Y. Zhu, R. Stiefelhagen, R. Urtasun and S. Fidler, 'MovieQA: Understanding Stories in Movies through Question-Answering' *In Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, June 2016*
- G. Mattyus, S. Wang, S. Fidler and R. Urtasun, 'HD Maps: Fine-grained Road Segmentation by Parsing Ground and Aerial Images' *In Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, June 2016*
- X. Chen, K. Kundu, Z. Zhang, H. Ma, S. Fidler and R. Urtasun, 'Monocular 3D Object Detection for Autonomous Driving', *In Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, June 2016*
- Z. Zhang, R. Kyros, S. Fidler and R. Urtasun, Instance-Level Segmentation with Deep Densely Connected MRFs [pdf] *In Conference on Computer Vision and Pattern Recognition (CVPR), Las Vegas, US, June 2016*
- I. Vendrov, R. Kyros, S. Fidler and R. Urtasun, 'Order-Embeddings of Images and Language', *In International Conference on Learning Representations (ICLR), Puerto Rico, May 2016*
- Y. Wang, M. Brubaker and R. Urtasun, 'Sequential Inference for Deep Gaussian Process', *In International Conference on Artificial Intelligence and Statistics (AISTATS), Cadiz, Spain, May 2016*
- X. Chen, K. Kundu, Y. Zhu, H. Ma, S. Fidler and R. Urtasun, '3D Object Proposals for Accurate Object Class Detection', *In Neural Information Processing Systems (NIPS), Montreal, Canada, December 2015*
- R. Kiros, Y. Zhu, R. Salakhutdinov, R. Zemel, A. Torralba, R. Urtasun and S. Fidler, 'Skip-Thought Vectors', *In Neural Information Processing Systems (NIPS), Montreal, Canada, December 2015*
- S. Wang, S. Fidler and R. Urtasun, 'Lost Shopping! Monocular Localization in Large Indoor Spaces', *In International Conference on Computer Vision (ICCV), Santiago, Chile, December 2015* (oral presentation)
- Y. Zhu, R. Kiros, R. Zemel, R. Salakhutdinov, R. Urtasun, A. Torralba and S. Fidler, 'Aligning Books and Movies: Towards Story-like Visual Explanations by Watching Movies and Reading Books', *In International Conference on Computer Vision (ICCV), Santiago, Chile, December 2015* (oral presentation)
- G. Mattyus, S. Wang, S. Fidler and R. Urtasun, 'Enhancing World Maps by Parsing Aerial Images', *In International Conference on Computer Vision (ICCV), Santiago, Chile, December 2015*
- P. Lenz, A. Geiger and R. Urtasun, 'FollowMe: Efficient Online Min-Cost Flow Tracking with Bounded Memory and Computation', *In International Conference on Computer Vision (ICCV), Santiago, Chile, December 2015*
- Z. Zhang, A. Schwing, S. Fidler and R. Urtasun, 'Monocular Object Instance Segmentation and Depth Ordering with CNNs', *In International Conference on Computer Vision (ICCV), Santiago, Chile, December 2015*
- D. Lin, C. Kong, S. Fidler and R. Urtasun, 'Generating Multi-Sentence Lingual Descriptions of Indoor Scenes', *In British Machine Vision Conference (BMVC), Swansea, Wales, September 2015* (oral presentation)
- L. C. Chen, A. Schwing, A. Yuille and R. Urtasun, 'Learning Deep Structured Models', *In International Conference on Machine Learning (ICML), Lille, France, July 2015* (oral presentation)
- S. Wang, S. Fidler and R. Urtasun, 'Holistic 3D Scene Understanding from a Single Geo-tagged Image', *In Conference in Computer Vision and Pattern Recognition (CVPR), Boston, MA, June 2015* (oral presentation)
- C. Liu, A. Schwing, K. Kundu, R. Urtasun and S. Fidler, 'Rent3D: Floor-Plan Priors for Monocular Layout Estimation', *In Conference in Computer Vision and Pattern Recognition (CVPR), Boston, MA,*

June 2015 (oral presentation)

- Y. Zhu, R. Urtasun, R. Salakhutdinov and S. Fidler, 'segDeepM: Exploiting Segmentation and Context in Deep Neural Networks for Object Detection', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Boston, MA, June 2015
- E. Simo-Serra, S. Fidler, F. Moreno-Noguer and R. Urtasun, 'Neuroaesthetics in Fashion: Modeling the Perception of Beauty', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Boston, MA, June 2015
- J. Xu, A. Schwing and R. Urtasun, 'Learning to Segment Under Various Weak Supervisions', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Boston, MA, June 2015
- J. Yao, S. Fidler and R. Urtasun, 'Real-Time Coarse-to-fine Topologically Preserving Segmentation', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Boston, MA, June 2015
- J. Yao, S. Ramalingam, Y. Taguchi, Y. Miki and R. Urtasun, 'Estimating Drivable Collision-Free Space from Monocular Video', *In Winter Conference on Applications of Computer Vision (WACV)*, Hawaii, January 2015
- S. Wang, A. Schwing and R. Urtasun, 'Efficient Inference of Continuous Markov Random Fields with Polynomial Potentials', *In Neural Information Processing Systems (NIPS)*, Montreal, Canada, December 2014
- J. Zhang, A. Schwing and R. Urtasun, 'Message Passing Inference for Large Scale Graphical Models with High Order Potentials', *In Neural Information Processing Systems (NIPS)*, Montreal, Canada, December 2014
- E. Simo-Serra, S. Fidler, F. Moreno-Noguer and R. Urtasun, 'A High Performance CRF Model for Clothes Parsing', *In Asian Conference on Computer Vision (ACCV)*, Singapore, November 2014
- K. Yamaguchi, D. McAllester and R. Urtasun, 'Efficient Joint Segmentation, Occlusion Labeling, Stereo and Flow Estimation', *In European Conference on Computer Vision (ECCV)*, Zurich, Switzerland, September 2014
- Y. Wang, M. Brubaker, B. Chaib-draa and R. Urtasun, 'Bayesian Filtering with Online Gaussian Process Latent Variable Models' *In Conference on Uncertainty in Artificial Intelligence (UAI)*, Quebec City, Canada, July 2014
- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Globally Convergent Parallel MAP LP Relaxation Solver using the Frank-Wolfe Algorithm', *In International Conference on Machine Learning (ICML)*, Beijing, China, June 2014 (oral presentation)
- C. Kong, S. Fidler, M. Bansal, D. Lin and R. Urtasun, 'What are you talking about? Text-to-Image Co-reference', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014
- D. Lin, S. Fidler, C. Kong and R. Urtasun, 'Visual Semantic Search: Retrieving Videos via Complex Textual Queries' *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014
- L C Chen, S. Fidler, A. Yuille and R. Urtasun, 'Beat the MTurkers: Automatic Image Labeling from Weak 3D Supervision', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014
- J. Xu, A. Schwing and R. Urtasun, 'Tell Me What You See and I will Show You Where It Is', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014
- R. Mottaghi, X Chen, X Liu, S. Fidler, R. Urtasun and A. Yuille, 'The Role of Context for Object Detection and Semantic Segmentation in the Wild', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014

- X. Chen, R. Mottaghi, X. Liu, N. Cho, S. Lee, S. Fidler, R. Urtasun and A. Yuille, 'Detect What You Can: Detecting and Representing Objects using Holistic Models and Body Parts', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Columbus, Ohio, June 2014
- S. Wang, L. Zhang and R. Urtasun, 'Transductive Gaussian Processes for Image Denoising', *In International Conference on Computational Photography (ICCP)*, Santa Clara, California, May 2014 (oral presentation)
- W. Luo, A. Schwing and R. Urtasun, 'Latent Structured Active Learning', *In Neural Information Processing Systems (NIPS)*, Lake Tahoe, USA, December 2013
- D. Lin, S. Fidler and R. Urtasun, 'Holistic Scene Understanding for 3D Object Detection with RGBD cameras', *In International Conference in Computer Vision (ICCV)*, Sydney, Australia, December 2013 (oral presentation)
- A. Schwing, S. Fidler, M. Pollefeys and R. Urtasun, 'Box In the Box: Joint 3D Layout and Object Reasoning from Single Images', *In International Conference in Computer Vision (ICCV)*, Sydney, Australia, December 2013
- H. Zhang, A. Geiger and R. Urtasun, 'Understanding High-Level Semantics by Modeling Traffic Patterns', *In International Conference in Computer Vision (ICCV)*, Sydney, Australia, December 2013
- J. Zhang, K. Chen, A. Schwing and R. Urtasun, 'Estimating the 3D Layout of Indoor Scenes and its Clutter from Depth Sensors', *In International Conference in Computer Vision (ICCV)*, Sydney, Australia, December 2013
- M. Brubaker, A. Geiger and R. Urtasun, 'Lost! Leveraging the Crowd for Probabilistic Visual Self-Localization', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, June 2013 (oral presentation) (**Best Paper Runner Up**)
- K. Yamaguchi, D. McAllester and R. Urtasun, 'Robust Monocular Epipolar Flow Estimation', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, June 2013 (oral presentation)
- S. Fidler, R. Mottaghi, A. Yuille and R. Urtasun, 'Bottom-up Segmentation for Top-down Detection', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, June 2013
- S. Fidler, A. Sharma and R. Urtasun, 'A Sentence is Worth a Thousand Pixels', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, June 2013
- R. Mottaghi, S. Fidler, J. Yao, R. Urtasun and D. Parikh, 'Analyzing Semantic Segmentation Using Human-Machine Hybrid CRFs', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Portland, USA, June 2013
- S. Fidler, S. Dickinson and R. Urtasun, '3D Object Detection and Viewpoint Estimation with a Deformable 3D Cuboid Model', *In Neural Information Processing Systems (NIPS)*, Lake Tahoe, USA, December 2012 (spotlight presentation)
- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Globally Convergent Dual MAP LP Relaxation Solvers using Fenchel-Young Margins', *In Neural Information Processing Systems (NIPS)*, Lake Tahoe, USA, December 2012
- K. Yamaguchi, T. Hazan, D. McAllester and R. Urtasun, 'Continuous Markov Random Fields for Robust Stereo Estimation', *In European Conference in Computer Vision (ECCV)*, Florence, Italy, October 2012 (oral presentation)
- A. Schwing and R. Urtasun, 'Efficient Exact Inference for 3D Indoor Scene Understanding', *In European Conference in Computer Vision (ECCV)*, Florence, Italy, October 2012
- M. Salzmann and R. Urtasun, 'Beyond Feature Points: Structured Prediction for Monocular Non-rigid 3D Reconstruction', *In European Conference in Computer Vision (ECCV)*, Florence, Italy, October 2012



- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Efficient Structured Prediction with Latent Variables for General Graphical Models', *In International Conference on Machine Learning (ICML)*, Edinburgh, Scotland, June 2012 (oral presentation)
- A. Geiger, P. Lenz and R. Urtasun, 'Are we ready for autonomous driving?', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Providence, USA, June 2012 (oral presentation)
- Y. Yao, S. Fidler and R. Urtasun, 'Describing the Scene as a Whole: Joint Object Detection, Scene Classification and Semantic Segmentation', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Providence, USA, June 2012
- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Efficient Structured Prediction for 3D Indoor Scene Understanding', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Providence, USA, June 2012
- A. Varol, M. Salzmann, P. Fua and R. Urtasun, 'A Constrained Latent Variable Model', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Providence, USA, June 2012
- M. Brubaker, M. Salzmann and R. Urtasun, 'A Family of MCMC Methods on Implicitly Defined Manifolds', *International Conference on Artificial Intelligence and Statistics (AISTATS)*, Gran Canaria, Spain, April 2012
- A. Geiger, C. Wojek and R. Urtasun, 'Joint 3D Estimation of Objects and Scene Layout', *In Neural Information Processing Systems (NIPS)*, Granada, Spain, December 2011
- A. Yao, J. Gall, L. van Gool and R. Urtasun, 'Learning Probabilistic Non-Linear Latent Variable Models for Tracking Complex Activities', *In Neural Information Processing Systems (NIPS)*, Granada, Spain, December 2011
- M. Salzmann and R. Urtasun, 'Physically-based Motion Models for 3D Tracking: A Convex Formulation', *In International Conference in Computer Vision (ICCV)*, Barcelona, Spain, November 2011
- J. Peng, T. Hazan, D. McAllester and R. Urtasun, 'Convex Max-Product over Compact Sets for Protein Folding', *In International Conference in Machine Learning (ICML)*, Bellevue, Washington, June 2011 (oral presentation)
- A. Geiger, M. Lauer and R. Urtasun, 'A generative model for 3D urban scene understanding from movable platforms', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Colorado Springs, June 2011 (oral presentation)
- A. Schwing, T. Hazan, M. Pollefeys and R. Urtasun, 'Distributed Message Passing for Large Scale Structured Prediction', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Colorado Springs, June 2011
- A. Shyr, T. Darrell, M. Jordan and R. Urtasun, 'Supervised Hierarchical Pitman-Yor Process for Natural Scene Segmentation', *In Conference in Computer Vision and Pattern Recognition (CVPR)*, Colorado Springs, June 2011
- H. Hamer, J. Gall, R. Urtasun and L. Van Gool, 'Data-Driven Animation of Hand-Object Interaction', *In Face and Gesture Recognition (FG)*, Santa Barbara, March 2011 (oral presentation)
- T. Hazan and R. Urtasun, 'A Primal-Dual Message-Passing Algorithm for Approximated Large Scale Structured Prediction', *In Neural Information Processing Systems (NIPS) Vancouver, Canada, December 2010.*
- M. Salzmann and R. Urtasun, 'Implicitly Constrained Gaussian Process Regression for Monocular Non-Rigid Pose Estimation', *In Neural Information Processing Systems (NIPS) Vancouver, Canada, December 2010.*
- T. Kim, G. Shakhnarovich and R. Urtasun, 'Sparse coding for learning interpretable spatio-temporal primitives', *In Neural Information Processing Systems (NIPS) Vancouver, Canada, December 2010.*

- A. Geiger, M. Roser and R. Urtasun, 'Efficient Large-Scale Stereo Matching', *In Asian Conference in Computer Vision (ACCV) Queenstown, New Zealand, November 2010*. (oral presentation)
- C. M. Christoudias, R. Urtasun, M. Salzmann and T. Darrell, 'Learning to Recognize Objects from Unseen Modalities', *In European Conference in Computer Vision (ECCV) Crete, Greece, September 2010*.
- M. Salzmann and R. Urtasun, 'Combining Discriminative and Generative Methods for 3D Deformable Surface and Articulated Pose Reconstruction', *In Conference in Computer Vision and Pattern Recognition (CVPR) San Francisco, June 2010*. (oral presentation)
- A. Shyr, R. Urtasun and M. I. Jordan, 'Sufficient Dimensionality Reduction for Visual Sequence Classification', *In Conference in Computer Vision and Pattern Recognition (CVPR) San Francisco, June 2010*.
- M. Salzmann, C. Ek, R. Urtasun and T. Darrell, 'Factorized Orthogonal Latent Spaces', *In International Conference on Artificial Intelligence and Statistics (AISTATS) Sardinia, Italy, May 2010*.
- N. D. Lawrence and R. Urtasun, 'Non-linear Matrix Factorization with Gaussian Processes', *In International Conference in Machine Learning (ICML) Montreal, Canada, June 2009*. (oral presentation)
- A. Geiger, R. Urtasun and T. Darrell, 'Rank Priors for Continuous Non-Linear Dimensionality Reduction', *In Conference in Computer Vision and Pattern Recognition (CVPR) Miami, June 2009*.
- C. M. Christoudias, R. Urtasun and T. Darrell, 'Co-training with noisy perceptual observations', *In Conference in Computer Vision and Pattern Recognition (CVPR) Miami, June 2009*.
- C. M. Christoudias, R. Urtasun and T. Darrell, 'Multi-View Learning in the Presence of View Disagreement', *In Conference on Uncertainty in Artificial Intelligence (UAI) Helsinki, Finland, July 2008*. (oral presentation)
- R. Urtasun, D. J. Fleet, A. Geiger, J. Popović, T. Darrell and N. D. Lawrence, 'Topologically-Constrained Latent Variable Models', *In International Conference in Machine Learning (ICML) Helsinki, Finland, July 2008*. (oral presentation)
- R. Urtasun and T. Darrell, 'Local Probabilistic Regression for Activity-Independent Human Pose Inference', *In Conference in Computer Vision and Pattern Recognition (CVPR) Anchorage, Alaska, June 2008*.
- M. Salzmann, R. Urtasun and P. Fua, 'Local Deformation Models for Monocular 3D Shape Recovery', *In Conference in Computer Vision and Pattern Recognition (CVPR) Anchorage, Alaska, June 2008*. (oral presentation)
- C. M. Christoudias, R. Urtasun and T. Darrell, 'Unsupervised Distributed Feature Selection for Multi-view Object Recognition', *In Conference in Computer Vision and Pattern Recognition (CVPR) Anchorage, Alaska, June 2008*.
- A. Kapoor, K. Grauman, R. Urtasun and T. Darrell, 'Active Learning with Gaussian Processes for Object Categorization', *In International Conference on Computer Vision (ICCV) Rio de Janeiro, Brazil, October 2007*.
- R. Urtasun, and T. Darrell, 'Discriminative Gaussian Process Latent Variable Models for Classification', *In International Conference on Machine Learning (ICML) Corvallis, Oregon, June 2007*. (oral presentation)
- R. Urtasun, D. J. Fleet and P. Fua, '3D People Tracking with Gaussian Process Dynamical Models', *In Conference on Computer Vision and Pattern Recognition (CVPR) New York, June 2006*.
- R. Urtasun, D. J. Fleet, A. Hertzmann and P. Fua, 'Priors for People Tracking from Small Training Sets', *In International Conference on Computer Vision (ICCV) Beijing, china, October 2005*. (oral presentation)

- R. Urtasun, D. J. Fleet and P. Fua, 'Monocular 3D Tracking of the Golf Swing', *In Conference on Computer Vision and Pattern Recognition (CVPR) San Diego, CA, June 2005.*
- R. Urtasun and P. Fua, '3D Human Body Tracking using Deterministic Motion Models', *In European Conference on Computer Vision (ECCV), Prague, Czech Republic, May 2004.*
- L. Herda, R. Urtasun and P. Fua, 'Hierarchical Implicit Surface Joint Limits to Constrain Video-Based Motion Capture', *In European Conference on Computer Vision (ECCV), Prague, Czech Republic, May 2004.*
- R. Urtasun and P. Fua, '3D Tracking for Gait Characterization and Recognition', *In Proceeding of the 6th International Conference on Automatic Face and Gesture Recognition (FGR), Seoul, Korea, May 2004. IEEE Computer Society.* (oral presentation)
- L. Herda, **R. Urtasun**, P. Fua and A. Hanson, 'An Automatic Method for Determining Quaternion Field Boundaries for Ball-and-Socket Joint Limits', *Proceeding of the 5th International Conference on Automatic Face and Gesture Recognition (FGR), pages 95 - 100, Washington DC, May 2002. IEEE Computer Society.*
- P. Dokladal, R. Urtasun, I. Bloch and L. Garnero, 'Segmentation of 3D head MR images using Morphological reconstruction under constraints and automatic selection of markers', *International Conference on Image Processing (ICIP), pages 1075-1078, Thessaloniki, Greece, October 2001.*

#### Refereed Workshops

- M. Salzmann, C. H. Ek, R. Urtasun and T. Darrell, 'FOLS: Factorized Orthogonal Latent Spaces', *In Learning Workshop Snowbird. Snowbird, Utah, April 2010.* (oral presentation)
- M. Salzmann and R. Urtasun, 'A Constrained Combination of Discriminative and Generative Methods', *In Learning Workshop Snowbird. Snowbird, Utah, April 2010.*
- C. M. Christoudias, R. Urtasun and T. Darrell, 'Bayesian Localized Multiple Kernel Learning', *In Learning from Multiple Sources with Applications to Robotics Workshop at NIPS. Whistler, Canada, December 2009.*
- N. D. Lawrence and R. Urtasun, 'Non-Linear Matrix Factorization', *In Learning Workshop Snowbird. Clearwater, Florida, April 2009.* (oral presentation)
- R. Urtasun, A. Geiger and T. Darrell, 'Rank Priors for Continuous Non-Linear Dimensionality Reduction', *In Learning Workshop Snowbird. Clearwater, Florida, April 2009.*
- C. M. Christoudias, R. Urtasun, A. Kapoor and T. Darrell, 'Co-training with Noisy Perceptual Observations', *In Learning Workshop Snowbird. Clearwater, Florida, April 2009.*
- R. Urtasun and T. Darrell, 'Local Probabilistic Regression for Activity-Independent Human Pose Inference', *In Learning Workshop Snowbird. Snowbird, Utah, April 2008.*
- R. Urtasun, A. Quattoni, N. D. Lawrence and T. Darrell, 'Transferring Nonlinear Representations using Gaussian Processes with a Shared Latent Space', *In Learning Workshop Snowbird. Snowbird, Utah, April 2008.*
- R. Urtasun, D. J. Fleet, T. Darrell and N. D. Lawrence, 'Topologically-Constrained Latent Variable Models', *In NIPS Workshop on Topology Learning, Whistler December 2007*
- R. Urtasun, D. J. Fleet and N. D. Lawrence, 'Modeling human locomotion with topologically constrained latent variable models', *In ICCV Workshop on Human Motion: Understanding, Modeling, Capture and Animation. Rio de Janeiro, Brazil, October 2007.* (oral presentation)

#### B. Books and/or Chapters

N/A

- C. Books edited  
N/A

## 7. Non-Refereed Publications

- TorontoCity: Seeing the World with a Million Eyes Shenlong Wang, Min Bai, Gellert Mattyus, Hang Chu, Wenjie Luo, Bin Yang, Justin Liang, Joel Cheverie, Sanja Fidler, Raquel Urtasun *Arxiv 1612.00423* December 2016
- MultiNet: Real-time Joint Semantic Reasoning for Autonomous Driving Marvin Teichmann, Michael Weber, Marius Zoellner, Roberto Cipolla, Raquel Urtasun *Arxiv 1612.07695* December 2016  
Deep Watershed Transform for Instance Segmentation Min Bai, Raquel Urtasun *Arxiv 1611.08303* November 2016
- Normalizing the Normalizers: Comparing and Extending Network Normalization Schemes Mengye Ren, Renjie Liao, Raquel Urtasun, Fabian H. Sinz, Richard S. Zemel *Arxiv 1611.04520* November 2016.
- Song From PI: A Musically Plausible Network for Pop Music Generation Hang Chu, Raquel Urtasun, Sanja Fidler *Arxiv 1611.03477* November 2016.
- Efficient Summarization with Read-Again and Copy Mechanism Wenyuan Zeng, Wenjie Luo, Sanja Fidler, Raquel Urtasun *Arxiv 1611.03382* November 2016.
- 3D Object Proposals using Stereo Imagery for Accurate Object Class Detection Xiaozhi Chen, Kaustav Kundu, Yukun Zhu, Huimin Ma, Sanja Fidler, Raquel Urtasun *Arxiv 1608.07711* August 2016.
- Find your Way by Observing the Sun and Other Semantic Cues Wei-Chiu Ma, Shenlong Wang, Marcus A. Brubaker, Sanja Fidler, Raquel Urtasun *Arxiv 1606.07415* June 2016.
- Soccer Field Localization from a Single Image Namdar Homayounfar, Sanja Fidler, Raquel Urtasun *Arxiv 1604.02715* April 2016.
- A. Schwing and R. Urtasun, 'Fully Connected Deep Structured Networks', *Arxiv 1503.02351* March 2015.
- T. Hazan, A. Schwing, D. McAllester and R. Urtasun, 'Blending Learning and Inference in Structured Prediction', *Arxiv 1503.02351* October 2012.
- T. Hazan and R. Urtasun, 'Approximated Structured Prediction for Learning Large Scale Graphical Models', *Arxiv 1006.2899* June 2010.
- R. Urtasun, A. Quattoni, N. D. Lawrence and T. Darrell, 'Transferring Nonlinear Representations using Gaussian Processes with a Shared Latent Space', *MIT Technical report* April 2008.
- R. Urtasun, M. Salzmann and P. Fua, '3D Morphing without User Interaction', *EPFL Technical report* 2004.
- R. Urtasun, 'Automatic segmentation of a fix number of markers (apply to the cerebellum and brainstem)', *ENST Telecom Paris Technical report* 2000.
- R. Urtasun, 'Segmentation of a Guinea pig using mathematical morphology', *ENST Telecom Paris Technical report* 2000.

## 8. Papers Presented at Meetings and Symposia

All peer-reviewed conference papers were presented at the conference. Additionally, see section C.11 for an enumeration of all other talks given at workshops and meetings.

## 9. Invited Lectures

I'll be giving two keynotes this year in major conferences. I have given more than 100 invited lectures in conferences, symposiums, universities and companies over the past few years.

### Keynotes In Major Conferences

- British Machine Learning Conference (BMVC), conference keynote  
*Towards Affordable Self-Driving Cars*, York, UK, September 2016
- International Conference on Learning Representations (ICLR), conference keynote  
*Learning Deep Structured Models*, Puerto Rico, US, May 2016

### Talks in Conferences and Invited Talks

- NIPS workshop on Intelligent Transportation, invited talk  
*Towards Affordable Self-Driving Cars*, December 2016
- NIPS workshop on Deep Learning for Action and Interaction, invited talk  
*The Role of Perception for Action*, December 2016
- NIPS workshop on Large Scale Computer Vision Systems, invited talk  
*TorontoCity benchmark*, December 2016
- Dagstuhl workshop on Kernel Machines and Gaussian Processes, invited talk  
*Deep Learning meets Kernel Machines*, Dagstuhl, Germany, November 2016
- ECCV workshop on Geometry Meets Deep Learning, invited talk  
*Geometry meets Deep Learning*, October 2016
- Samsung Forum, invited talk  
*Towards Affordable Self-Driving Cars*, Seoul, Korea, October 2016
- Samsung Research, invited talk  
*Instance-Level Semantic Segmentation*, Seoul, Korea, October 2016
- Oxford University, invited talk  
*Learning Deep Structured Models*, Oxford, England, September 2016
- Vision and Sports Summer School  
*Learning Deep Structured Models*, Prague, Czech Republic, August 2016
- ACCV AC meeting, invited talk  
*Seeing through the Clouds*, Taiwan, August 2016
- Medical Imaging meets Machine Learning Summer School,  
Lecture topic Learning Deep Structured Models. Favignana, Sicily, Italy, August 2016.
- CVPR Workshop on Geo-Spatial Computer Vision invited talk  
*Seeing Through the Clouds*, Las Vegas, July 2016
- CVPR workshop on Women in Computer Vision, invited talk  
*Towards Affordable Self-driving Cars*, Las Vegas, June 2016
- Intelligent Vehicle workshop on Deep Learning, invited talk  
*Towards Affordable Self-driving Cars*, Gottenburg, Sweden, June 2016
- MIT Deep Learning Workshop, invited talk  
*Learning Deep Structured Models*, Cambridge, US, June 2016
- Stanford ONR Workshop on deep structured learning, invited talk  
*Introducing Structure in Deep Learning*, Stanford, April 2016
- Baidu USA, invited talk  
*Towards Affordable Self-Driving Cars*, Mountain View, April 2016

- Baidu China, invited talk  
*Towards Affordable Self-Driving Cars*, April 2016
- Google Brain, invited talk  
*Introducing Structure in Deep Learning*, April 2016
- Toyota Motor Corporation, invited talk  
*Towards Affordable Self-Driving Cars*, Ann Arbor, April 2016
- IARPA Kick-Off meeting  
*Deep Structured Learning*, April 2016
- ICCV'15 Tutorial  
*Deep Structured Models*, Chile, Dec 2015,
- Scenes from Video Workshop at ICCV'15, invited talk  
*Visual Perception for Autonomous Driving*, Chile, Dec 2015
- Dagstuhl workshop on Vision for Autonomous Vehicles and Probes, invited talk  
*3D Scene Understanding for Autonomous Driving*, Dagstuhl, Germany, November 2015
- Yale University, Department of Radiology and Biomedical Imaging, invited lecture  
*Approaching Big Data Problems via Deep Learning: from Computer Vision to Medical Imaging*. Southbury CT, USA August 2015
- Workshop in Probabilistic Graphical Models, invited talk  
*Deep Structured Models*, Heidelberg, Germany, October 2015
- Robert Bosch, invited talk  
*Towards affordable self-driving cars*, Hildesheim, Germany, October 2015
- German Aerospace (DLR) invited talk  
*Towards affordable self-driving cars*, Munich, Germany, October 2015
- Vision and Sports Summer School, invited lecture  
*Learning Deep Structured Models*, Prague, Czech Republic, October 2015
- Computational Vision Summer School (CVSS), invited lecture  
*Learning Deep Structured Models*, Black Forest, Germany, July 2015
- Biomed Summer School, invited lecture  
*Learning Deep Structured Models*, Paris, France, July 2015
- CVPR Workshop on Large Scale Visual Recognition and Retrieval (BigVision), invited talk  
*Learning Deep Structured Models*, Boston, US, June 2015
- CVPR Workshop on Semantics for Visual Reconstruction, Localization and Mapping, invited talk  
*Exploiting the Web for Reconstruction, Recognition and Self-localization*, Boston, US, June 2015
- CVPR Tutorial  
*Indoor Scene Understanding*, Boston, US, June 2015
- Canadian Conference on Robotic Vision, invited talk  
*Towards Affordable Self-Driving Cars*, Halifax, Canada, June 2015
- Deep Learning for Vision workshop, invited talk  
*Deep Structured Models*, Canary Islands, Spain, April 2015
- Robotics and Vision Summer School, invited lecture  
*Machine Learning and Structured Prediction*, Kioloa, Australia, March 2015
- CVPR AC meeting Workshop, invited talk  
*Heterogeneous Priors for 3D Scene Understanding*, Boston, US, February 2015
- Dagstuhl workshop on Holistic Scene Understanding, invited talk  
*Towards Affordable Self-Driving Cars*, Dagstuhl, Germany, February 2015

- Chinese University of Hong Kong, invited talk  
*Visual Scene Understanding for Autonomous Driving*, Hong Kong, November 2014
- Hong Kong Polytechnic University, invited talk  
*Visual Scene Understanding for Autonomous Driving*, Hong Kong, November 2014
- University of Hong Kong, invited talk  
*Visual Scene Understanding for Autonomous Driving*, Hong Kong, November 2014
- Siggraph Asia Workshop on Indoor Scene Understanding, invited talk  
*Understanding Complex Scenes and People That Talk About Them*, Shenzeng, China, November 2014
- DCS Turns 50 Pannel, invited panelist *The Future as we see it*, Toronto, November 2014
- Bay Area Vision Meeting (BAVM), invited talk  
*Visual Scene Understanding for Autonomous Driving*, Stanford CA, October 2014
- ONR Workshop on Structured Learning for Scene Understanding, invited talk  
*Deep Structured Models*, Stanford CA, October 2014
- RSS Workshop on RGB-D: Advanced Reasoning with Depth Cameras, invited talk  
*Understanding Complex Scenes and People that Talk About Them*, Berkeley CA, July 2014
- Machine Learning Summer School (MLSS), invited lecture  
*Structured Prediction for Scene Understanding*, Beijing, China, June 2014
- Amazon, Seattle  
*Visual Scene Understanding for Autonomous Driving*, May 2014
- CVPR Area Chair meeting, invited talk  
*What are you talking about? Text-to-Image Coreference*, December 2013
- Scenes from Video Workshop, invited talk  
*Visual Scene Understanding for Autonomous Systems*, December 2013
- ICCV Workshop on 3D Representation and Recognition (3d-RR), invited talk  
*Reconstruction meets Recognition in Indoor Scenes*, December 2013
- ICCV Workshop on Computer Vision for Autonomous Driving, invited talk  
*Visual Scene Understanding for Autonomous Systems*, December 2013
- Stanford Artificial Intelligence Lab 2013 Fall Symposium, invited talk  
*Visual Scene Understanding for Autonomous Systems*, September 2013
- UPenn  
*Visual Scene Understanding for Autonomous Systems*, September 2013
- MPI Tuebingen  
*Visual Scene Understanding for Autonomous Systems*, September 2013
- MSR Cambridge, UK  
*Visual Scene Understanding for Autonomous Systems*, September 2013
- ICCV AC meeting, Oxford, UK  
*Box In the Box: Joint 3D Layout and Object Reasoning from Single Image*, August 2013
- IPAM summer school, UCLA, invited lecture  
*Introduction to Gaussian processes and Structure Prediction*, August 2013
- CVPR Workshop on Structured Prediction - Tractability, Learning and Inference, invited talk  
*Efficient learning and inference for holistic scene understanding*, June 2013.
- I-Robot  
*Holistic Models for Visual Perception in Autonomous Systems*, May 2013
- MERL  
*Holistic Models for Visual Perception in Autonomous Systems*, May 2013

- Harvard  
*Holistic Models for Visual Perception in Autonomous Systems*, May 2013
- MIT  
*Holistic Models for Visual Perception in Autonomous Systems*, May 2013
- University of Toronto  
*Holistic Models for Visual Perception in Autonomous Systems*, Feb 2013
- UC Berkeley  
*Holistic Models for Visual Perception in Autonomous Systems*, Feb 2013
- Johns Hopkins University  
*Holistic Models for Visual Perception in Autonomous Systems*, Feb 2013
- UPenn  
*Efficient Algorithms for Semantic Scene Parsing*, January 2013
- Georgia Tech  
*Efficient Algorithms for Semantic Scene Parsing*, January 2013
- NICTA, Australia  
*Efficient Algorithms for Semantic Scene Parsing*, December 2012
- ETH Zurich  
*Efficient Algorithms for Semantic Scene Parsing*, November 2012
- Karlsruhe Institute of Technology  
*Efficient Algorithms for Semantic Scene Parsing*, November 2012
- Microsoft Research UK  
*Efficient Algorithms for Semantic Scene Parsing*, November 2012
- ECCV Workshop on Unsolved Problems in Optical Flow and Stereo Estimation, invited talk  
*Are we ready for autonomous driving? The KITTI Vision Benchmark Suite*, October 2012.
- Midwest Computer Vision Workshop  
*Efficient Exact Inference for 3D Indoor Scene Understanding*, September 2012.
- Spanish Journeys of Automotion  
*Are we ready for autonomous driving?*, September 2012.
- Microsoft workshop: At the intersection of Vision, Graphics, Learning and Sensing — Representations and Applications Workshop, invited talk  
*Are we ready for autonomous driving?*, May 2012.
- Workshop on Broadening the Participation in Data Mining, SIAM 2012, invited talk  
*Generative Models for 3D Scene Understanding from Movable Platforms*, April 2012.
- University of Tokyo  
*Generative Models for 3D Scene Understanding from Movable Platforms*, April 2012.
- TTI Japan  
*Generative Models for 3D Scene Understanding from Movable Platforms*, April 2012.
- University of Toronto  
*Generative Models for 3D Scene Understanding from Movable Platforms*, March 2012.
- Midwest Computer Vision Workshop  
*Efficient Structured Prediction for 3D Indoor Scene Understanding*, January 2012.
- MPI-Saarbrücken  
*Efficient learning and inference for holistic scene understanding*, December 2011.
- University of Alcalá  
*Generative Models for 3D Scene Understanding*, December 2011.



- Tsingua University  
*Generative Models for 3D Scene Understanding*, October 2011.
- Peking University  
*Generative Models for 3D Scene Understanding*, October 2011.
- IScIDE 2011, invited talk  
*Generative Models for 3D Scene Understanding*, October 2011.
- Midwest Computer Vision Workshop  
*Generative Models for 3D Scene Understanding*, May 2011.
- EFPL  
*3D Urban Scene Understanding from Movable Platforms*, March 2011.
- Washington University at St Louis  
*3D Urban Scene Understanding from Movable Platforms*, March 2011.
- TTI Japan  
*3D Urban Scene Understanding from Movable Platforms*, January 2011.
- TCRD, Nagoya  
*3D Urban Scene Understanding from Movable Platforms*, January 2011.
- NIPS workshop on New Directions in Multiple Kernel Learning, invited talk  
*A Gaussian Process View on MKL*, December 2010
- Women in Machine Learning Workshop, invited talk  
*3D Urban Scene Understanding from Movable Platforms*, December 2010.
- University of Toronto  
*A unified framework for non-rigid reconstruction and articulated pose estimation*, December 2010
- MPI-Tubingen  
*Non-parametric models for the analysis of human behavior*, April 2010.
- ETHZ Computer Science Colloquium  
*Non-parametric models for the analysis of human behavior*, April 2010.
- TTI-Chicago  
*Non-parametric models for the analysis of human behavior*, February 2010.
- PIXAR animation studios  
*Non-parametric models for the analysis of human behavior*, August 2009.
- CMU VASC Seminar Series  
hosted by Prof. Jessica Hodgins, June 2009
- In International Conference in Machine Learning  
*Non-linear Matrix Factorization with Gaussian Processes*. Montreal, Canada, June 2009.
- ETH Zurich  
*Non-parametric models for the analysis of human behavior*. Hosted by Prof. Markus Gross, June 2009.
- MIRAGE 2009, invited talk  
*Non-Parametric Latent Variable Models for Shape and Motion Analysis*. Hosted by Prof. Andre Galalovic, May 2009
- TTI-Chicago  
*Non-parametric models for the analysis of human behavior*. Hosted by Prof. David McAllester and Prof. Greg Shakhnarovich, April 2009.
- USC  
*Non-Parametric Latent Variable Models for Shape and Motion Analysis*. Hosted by Prof. Fei Sha and Prof. Ram Nevatia, December 2008.

- UC Berkeley Computer Graphics Seminar  
*Non-Parametric Latent Variable Models for Shape and Motion Analysis*. Hosted by Prof. James O'Brian, November 2008
- UC Berkeley Computer Vision Seminar  
*Non-Parametric Latent Variable Models for Shape and Motion Analysis*. Hosted by Prof. Jitendra Malik, October 2008.
- UC Berkeley TILab  
*Gaussian Processes for Character Animation and Tracking*. Hosted by Prof. Ruzena Bajcsy, September 2008.
- In International Conference in Machine Learning  
*Topologically-Constrained Latent Variable Models*. Helsinki, Finland, July 2008.
- University of Manchester  
*Probabilistic non-parametric models for shape recovery and pose estimation*. Hosted by Prof. Neil Lawrence, May 2008.
- MIT Seminar Graphics Group  
*Local Deformation Models for Monocular 3D Shape Recovery*. Hosted by Prof. Jovan Popovic and Prof. Fredo Durand, March 2008
- In ICCV Workshop on Human Motion: Understanding, Modeling, Capture and Animation  
*Modeling human locomotion with topologically constrained latent variable models*. Rio de Janeiro, Brazil, October 2007.
- MIT Seminar Vision Group  
hosted by Prof. William Freeman and Prof. Antonio Torralba, October 2007.
- In International Conference in Machine Learning  
*Discriminative Gaussian Process Latent Variable Models for Classification*. Corvallis, Oregon, June 2007.
- University of Manchester  
hosted by Prof. Neil Lawrence, April 2007.
- MIT Seminar Graphics Group  
hosted by Prof. Jovan Popovic, March 2007
- Boston University IVC Seminar series  
hosted by Prof. Stan Sclaroff, March 2007
- MIT Seminar Vision Interface Group  
hosted by Prof. Trevor Darrell, October 2006
- BIRS 2006 Workshop on Mathematical Methods in Computer Vision  
*Gaussian Processes for Monocular 3D Person tracking*. Banff, Canada, hosted by Prof. Bill Triggs, October 2006.
- CMU VASC Seminar Series hosted by Sonya Allin, June 2006
- Gaussian Processes in Practice Workshop  
*Gaussian Processes for Monocular 3D People tracking*. Bletchley Park, U.K., hosted by Prof. Neil Lawrence, June 2006
- In International Conference on Computer Vision  
*Priors for People Tracking from Small Training Sets*. Beijing, China. October 2005.
- CIAR summer school, University of Toronto  
Toronto, Canada, hosted by Prof. David Fleet. July 2005.
- In International Conference on Automatic Face and Gesture Recognition  
*3D Tracking for Gait Characterization and Recognition*. Seoul, Korea. May 2004.

- University of Toronto  
hosted by Prof. David Fleet, September 2003.

## C. LIST OF COURSES

### 10. A. Undergraduate courses taught

**CSC 411 : Introduction to Machine Learning** , Fall 2014, Fall 2015 (two sections), Fall 2016 (two sections)

**CSC 412 : Probabilistic Graphical Models** , Winter 2015

### B. Graduate courses taught

**CSC 2541: Sports Analytics** Winter 2017

**CSC 2541: Visual Perception for Autonomous Driving** Winter 2016

**CSC 2506: Probabilistic Graphical Models** Winter 2015

**CSC 2515: Introduction to Machine Learning** Winter 2015

**TTI Chicago: Computer Vision** Winter 2013

**TTI Chicago: Visual Recognition** Winter 2012

**TTI Chicago: Learning and Inference in Graphical Models** Spring 2011

**ETH Zurich: Human Motion Analysis** Spring 2010

**TTI Chicago: Statistical Learning in Artificial Intelligence** Fall 2009

**MIT Course 6.976: Seminar on Human Motion Tracking** Fall 2007

### C. Theses supervised

I have supervised 5 postdocs, 13 PhD students and 17 Master students. Since I arrived to the University of Toronto less than 3 years ago, I have supervised 17 undergrads. In the past 4 years I have also supervised 35 visiting students, which joined my lab for a period of 3 months to a year. At least half of those students came for a second visit and/or continue doing new projects under my supervision once they left my lab. I have published papers with most of those students, and I have papers under submission or preparation with the students that have recently joined my lab. Over the past three years I have hosted 10 undergraduate students from China (Zheng, Song, Liu, Zhao, Zhang, Chen, Meng, Zhang, Chen, Zhang). They have all continued on to graduate school and have been admitted into great schools such as MIT, Stanford, CMU, UCLA, UT Austin, USC and ETH. I have graduated 5 PhD students and 2 hold academic positions. Geiger is a junior faculty at MPI Tuebingen (Germany) and Schwing is an assistant professor at UIUC. The other two students are working at a startup and Lenz is at Bosch working in the autonomous driving team. From my postdocs, Brubaker is an Assistant Professor at York University, and Schwing is an Assistant Professor at UIUC. From my visiting students two hold faculty positions, Yao is a junior faculty at University of Bonn and Angst is a junior faculty at MPI Saarbrücken and visiting professor at Stanford. My students and postdocs have also earned several distinguished awards. My student Andreas Geiger received very prestigious awards for his PhD work: the Intelligent Vehicles Best Dissertation Proposal Award in 2013, the Ernst-Schoemperlen Award in 2014 and the 2014 KIT Doctoral award. My student Alexander Schwing won the ETH Medal for his PhD thesis. Furthermore, together with my postdoc Marcus Brubaker and my student Andreas Geiger, we received the best paper runner-up award at CVPR 2013.

#### Postdocs

- Gellert Mattyus, *from University of Toronto*  
(October 2016 - Present)

- Markarand Tapaswi, *from University of Toronto*  
(October 2016 - Present)
- Marc Law, *from University of Toronto*  
(June 2016 - Present)
- Alexander Schwing, *from University of Toronto*  
(October 2014 - August 2016)
- Marcus Brubaker, *from Toyota Technological Institute at Chicago*  
(October 2011 - June 2014)

### PhD Students

- Paul Vicol, *from University of Toronto*.  
(Co-supervised with Sanja Fidler, expected 2020)
- Hang Chu, *from University of Toronto*.  
(Co-supervised with Sanja Fidler, expected 2020)
- Renjie Liao, *from University of Toronto*.  
(Co-supervised with Rich Zemel, expected 2019)
- Shenlong Wang, *from University of Toronto*.  
(expected 2018)
- Namdar Homayounfar, *from University of Toronto*.  
(expected 2018)
- Kaustav Kundu, *from University of Toronto*.  
(Co-supervised with Sanja Fidler, expected 2017)
- Wenji Luo, *from University of Toronto*.  
(expected 2017)
- Jian Yao, *from University of Toronto*.  
(expected June 2015)
- Philip Lenz, *from Karlsruhe Institute of Technology*  
(Co-supervised with Christoph Stiller, graduated Feb 2015)
- Alexander Schwing, *from ETH Zurich*  
(Co-supervised with Marc Pollefeys and Tamir Hazan, graduated 2013)
- Andreas Geiger, *from Karlsruhe Institute of Technology*  
(Co-supervised with Christoph Stiller, graduated June 2013)
- Alex Shyr, *from UC Berkeley*.  
(Co-supervised with Michael Jordan and Trevor Darrell, graduated 2011).
- C. Mario Chirstoudias, *from MIT*.  
Probabilistic Models for Multi-View Semi-Supervised Learning and Coding.  
(Co-supervised with Trevor Darrell, graduated June 2009).

### Master Students

- Lisa Zhang *from University of Toronto* (co-supervised with Rich Zemel).  
(Fall 2016 - expected 2018)
- Joelle Chaverie *from University of Toronto*.  
(Fall 2016 - expected 2018)
- Justin Liang *from University of Toronto*.  
(Summer 2016 - expected 2018)
- Bin Yang *from University of Toronto*.  
(Summer 2016 - expected 2018)

- Min Bai *from University of Toronto*.  
3D Object Detection for Autonomous Driving (Fall 2015 - expected 2017)
- Lluís Castrejon *from University of Toronto* (co-supervised with Sanja Fidler).  
(Fall 2015 - expected 2017)
- Eleni Triantafillou *from University of Toronto* (co-supervised with Rich Zemel).  
(Fall 2015 - expected 2017)
- Yukun Zhu *from University of Toronto* (co-supervised with Sanja Fidler).  
Large Scale Object Detection (Fall 2014 - expected 2016)
- Ivan Vendrov *from University of Toronto* (co-supervised with Sanja Fidler).  
Holistic Models for Text and Image Understanding (Fall 2014 - expected 2016)
- Ziyu Zhang *from University of Toronto* (co-supervised with Sanja Fidler).  
Video semantic segmentation for autonomous driving (Fall 2014 - expected 2016)
- Vikas Garg, *from Toyota Technological Institute at Chicago*.  
Structured Ranking (graduated Jan. 2014)
- Abhishek Sen, *from Toyota Technological Institute at Chicago*.  
Contextual Object Detection for Autonomous Driving (graduated Jan. 2014)
- Kaustav Kundu, *from Toyota Technological Institute at Chicago*.  
3D Indoor Object Detection (graduated Jan. 2014)
- Wenji Luo, *from Toyota Technological Institute at Chicago*.  
Active Learning in Structured Models (graduated Jan. 2014)
- Jian Yao, *from Toyota Technological Institute at Chicago*.  
(graduated 2013)
- Taehwan Kim, *from Toyota Technological Institute at Chicago*.  
(Co-supervised with Greg Shakhnarovich, graduated 2012)
- Andreas Geiger, *from Karlsruhe Institute of Technology while at MIT*.  
Rank Priors for Continuous Non-Linear Dimensionality Reduction (graduated 2008)

#### **Undergrad Students (at UofT)**

- Mathew Ng Engineering Science thesis (Fall 2016 - Summer 2017)
- Ming Yue Engineering Science thesis (Fall 2016 - Summer 2017)
- Wei Cui, Engineering Science thesis (Fall 2016 - Summer 2017)
- Ge (Olga) Xu, Computer Science (Fall 2016 - Summer 2017)
- Ethan Xu, Computer Science (Fall 2016 - Summer 2017)
- Elias Tragas, Computer Science (Fall 2015 - Summer 2017)
- Oliver Tan, USRA (Summer 2016)
- Davi Frossard, Computer Science (Summer 2016)
- Ze (Aaron) Wang, Engineering Science thesis (Fall 2015 - Summer 2016)
- Boris Ivanovic, Engineering Science thesis (Fall 2015 - Summer 2016). Now master student at Stanford
- David Madras, CS research (Fall 2015). Now master student at University of Toronto
- David London, CS research (Fall 2015)
- Wen Xiao, CS research (Fall 2015 - Summer 2016)
- Vincent Perot, UTRECS (Summer 2015). Now at Google
- Erin Grant, USRA + CS research (Winter 2015 - Winter 2016). Now PhD student at UC Berkeley
- Sun Baik, Engineering Science thesis (Fall 2014 - Summer 2015)

- Eleni Triantafillou, CS research (Winter 2015). Now master student at University of Toronto

### Visiting Students/Postdocs

- Amlan Kar (Undergrad student from IIT Kanpur), Summer 2016
- Ruiyu Li (PhD student from Chinese University of Hong Kong), Summer 2016
- Shu Liu (PhD student from Chinese University of Hong Kong), Summer 2016
- Nina Merkle (PhD student from DLR, Germany), Summer 2016
- Xiaojuan Qi (PhD student from Chinese University of Hong Kong), Summer 2016
- Vasu Sharma (Undergrad student from IIT Kanpur), Summer 2016
- Marvin Teichmann (Master student from KIT, Germany), Summer 2016. Now PhD student at Cambridge University
- Wenyuan Zeng (Undergrad from Tsinghua University), Summer 2016
- Hang Chu (Masters from Cornell), Fall 2015 - 2016. Now PhD student at University of Toronto
- Shiyong Cui (Postdoc from German Aerospace Center (DLR)), Summer 2015 - 2016
- Gellert Mattyus (PhD student from German Aerospace Center (DLR)), Summer 2014- 2016. Now postdoc at University of Toronto
- Kangwei Liu (PhD student from NLPR, Chinese Academy of Sciences), Summer 2015 - Present
- Wei-Chiu Ma (Master student from CMU), Summer 2015 - 2016. Now Phd student at MIT
- Makarand Tapaswi (PhD student from KIT, Germany), Fall 2015 - 2016. Now postdoc at University of Toronto
- Song Yang (Undergrad from Tsinghua University), Summer 2015. Now PhD student at Stanford
- Xiaozhi Chen (PhD student at Tsinghua University) Winter 2015
- Liang-Chieh Chen (PhD student at UCLA) Summer 2013 - Fall 2014. Now at Google
- Edgar Simo-Serra (PhD student at UPC) Spring - Summer 2014
- Jia Xu (PhD student at University of Wisconsin-Madison) Summer 2014. Now master student at Intel
- Chenxi Liu (undergrad at Tsinghua University) Summer 2014. Now PhD student at UCLA
- Yinan Zhao (undergrad at Tsinghua University) Summer 2014. Now master student at UT Austin
- Kong Chen (Undergrad at Tsinghua University) Summer 2013. Now PhD student at CMU.
- Yali Wang (PhD student at Laval University, Canada) Summer 2013.
- Kan Chen (Undergrad from Tsinghua University). Now PhD student at USC. Summer 2012. Now PhD student at USC.
- Roland Angst (PhD student from ETH Zurich). Now assistant professor at MPI/Stanford. Summer 2010.
- Martin Hjelm (Master student from KTH). Now PhD student at KTH. Summer 2011
- Ye Meng (Undergrad from BeiHang University). Summer 2013.
- Roozbeh Mottaghi (PhD student from UCLA). Now postdoctoral associate at Stanford. Summer 2012 - Fall 2013
- Zhou Ren (Master student from UCLA). Now PhD student at UCLA. Summer 2013
- Abhishek Sharma (PhD student from University of Maryland). Summer 2012
- Aydin Varol (PhD student from EPFL). Fall 2011 - Summer 2012
- Angela Yao (PhD student from ETH Zurich). Now Assistant professor at University of Bonn. Summer 2010
- Jose Javier Yebes (PhD student from Universidad de Alcala). Summer 2011 - Fall 2012
- Hongyi Zhang (Undergrad from Peking University). Now PhD student at MIT. Summer 2012

- Jian Zhang (Undergrad student from Tsinghua University, Now master student at ETH Zurich. Summer 2012)

#### D. Other teaching and lectures given

During my academic career I have performed other types of teaching activities beyond teaching courses at the university. I have put particular emphasis in teaching summer schools in machine learning, computer vision, robotics, neuroscience and medical imaging. I believe this is a great experience to bridge the gap between communities, understand what students in other fields need, and have a broader perspective on my research as a whole. In particular, I have taught 7 summer schools in the past 3 years.

- Vision and Sports Summer School  
*Learning Deep Structured Models*, Prague, Czech Republic, August 2016
- Medical Imaging meets Machine Learning Summer School,  
Lecture topic Learning Deep Structured Models. Favignana, Sicily, Italy, August 2016.
- Yale University, Department of Radiology and Biomedical Imaging  
*Approaching Big Data Problems via Deep Learning: from Computer Vision to Medical Imaging*. Southbury CT, USA October 2015
- Vision and Sports Summer School  
*Learning Deep Structured Models*, Prague, Czech Republic, August 2015
- Computational Vision Summer School (CVSS)  
*Learning Deep Structured Models*, Black Forest, Germany, July 2015
- Biomed Summer School  
*Learning Deep Structured Models*, Paris, France, July 2015
- Robotics and Vision Summer School, invited lecture  
*Machine Learning and Structured Prediction*, Kioloa, Australia, March 2015
- Machine Learning Summer School (MLSS), invited lecture  
*Structured Prediction for Scene Understanding*, Beijing, China, June 2014
- IPAM summer school, UCLA, invited lecture  
*Introduction to Gaussian processes and Structure Prediction*, August 2013

Besides lecturing at summer schools, I have also been involved in lecturing in other courses outside the department:

- New Course on Fundamentals of UAVs: As part of the new Robotics major and in the context of an NSERC Create grant, together with researchers at the Institute for Aerospace Studies (UTIAS), we are developing a new course on fundamentals of unmanned aerial vehicles. I am responsible, together with Tim Barfoot, of teaching the lectures on perception algorithms.
- ESC301: Engineering Science Robotics Option Seminar Course. This semester I gave a lecture on my research on self-driving cars to third year students in the new Robotics major.
- Last fall I gave a lecture at the Rotman School of Management to establish entrepreneurship partnerships between the machine learning group and the MBA students. I believe my graduate students will benefit significantly from this contacts in the near future. This year I'm giving the same lecture.
- During my academic career at TTI Chicago, I volunteered twice to go to Japan to teach fundamentals of machine learning to undergrad students.

Furthermore, I have given several tutorials at major computer vision conferences:

- 'Deep Structured Models', *Half-day tutorial at International Conference in Computer Vision (ICCV)*, Santiago, Chile, December 2015.

- 'Indoor Scene Understanding', *Half-day tutorial at Conference in Computer Vision and Pattern Recognition (CVPR), Boston, USA, June 2015.*
- 'All you want to know about Gaussian Process', *Full-day tutorial at Conference in Computer Vision and Pattern Recognition (CVPR), Providence, USA, June 2012.*

#### **D. ADMINISTRATIVE POSITIONS**

##### **11. A. Positions held and service on committees and organizations within the University**

- Sept 2016–present:** Hiring Committee
- Sept 2015–present:** Awards Committee
- Sept 2015–present:** Incentive Task Force
- Sept 2015–present:** Chair of Grad Research Skills
- Sept 2015–present:** Women DCS Coordinator
- Sept 2015–present:** Professional Master's Admissions
- Sep 2014–Aug. 2015:** DCS Chair Grad Recruiting
- Sep 2014–Aug. 2015:** DCS Grad Admissions
- Sep 2014–Aug. 2015:** DCS Grad Affairs Committee
- Jan 2014–Aug. 2014:** Chair of DCS Grad Recruiting Committee
- Jan 2014–Aug. 2014:** DCS Grad Affairs Committee
- Jan 2014–Aug. 2014:** DCS Professional Master's Admissions
- Jan 2014–Aug. 2014:** DCS Graduate Office Assistant Recruitment
- Jan 2014–Aug. 2014:** DCS Representative for Robotics Option Committee

##### **B. Positions held and service on committees and organizations outside the University**

(of scholarly and academic significance)

I'll be program chair of CVPR 2018. I have been area chair of top conferences in 3 different fields: 11 times in machine learning, 8 in computer vision and 1 in robotics. This emphasizes the fact that my research is very multidisciplinary. In addition, I've been in the best paper award committee of NIPS, and I am in the editorial board of IJCV, top journal in computer vision. Additionally, I have served 3 times as workshop/tutorials chair in top conferences in machine learning and computer vision. Finally, I have organized 7 different workshops in a wide variety of topics.

##### **Program Chair:**

- Conference in Computer Vision and Pattern Recognition (CVPR) 2018

##### **Best paper award committee:**

- Neural Information Processing Systems (NIPS) 2011

##### **Editorial Board:**

- International Journal in Computer Vision (IJCV) (2013-2016)

##### **Area Chair:** (senior program committee)

- Neural Information Processing Systems (NIPS) 2017
- International Conference on Computer Vision (ICCV) 2017



- International Conference on Machine Learning (ICML) 2017
- European Conference in Computer Vision (ECCV) 2016
- International Conference in 3D Vision (3DV) 2016
- Conference on Uncertainty in Artificial Intelligence (UAI) 2016
- International Conference on Machine Learning (ICML) 2016
- International Conference on Learning Representations (ICLR) 2016
- International Conference on Robotics and Automation (ICRA) 2016
- Asian Conference on Computer Vision (ACCV) 2016
- Conference in Computer Vision and Pattern Recognition (CVPR) 2015
- International Conference on Machine Learning (ICML) 2015
- Conference on Uncertainty in Artificial Intelligence (UAI) 2015
- European Conference on Computer Vision (ECCV) 2014
- Conference in Computer Vision and Pattern Recognition (CVPR) 2014
- International Conference on Computer Vision (ICCV) 2013
- International Conference on Machine Learning (ICML) 2013
- Neural Information Processing Systems (NIPS) 2012
- Conference on Uncertainty in Artificial Intelligence (UAI) 2012
- Neural Information Processing Systems (NIPS) 2010
- Neural Information Processing Systems (NIPS) 2011

**Workshop/Tutorial Chair:**

- Workshop Chair Neural Information Processing Systems (NIPS) 2012,
- Doctoral Consortium Chair Conference in Computer Vision and Pattern Recognition (CVPR) 2014
- Tutorial Chair Conference in Computer Vision and Pattern Recognition (CVPR) 2014
- Tutorial Chair Conference in Computer Vision and Pattern Recognition (CVPR) 2016
- Tutorial Chair International Conference in Computer Vision (ICCV) 2019

**Program Committee:**

I have only incorporated the most significant conferences. In addition, I've been in the program committee of more than 100 other conferences and workshops.

- International Conference on Computer Vision (ICCV) 2007, 2009, 2011, 2015
- Conference in Computer Vision and Pattern Recognition (CVPR) 2007, 2009, 2010, 2011, 2012, 2013, 2016, 2017
- European Conference on Computer Vision (ECCV) 2008, 2010, 2012
- Asian Conference on Computer Vision (ACCV) 2010
- British Machine Vision Conference (BMVC) 2011, 2012, 2013, 2015
- Neural Information Processing Systems (NIPS) 2008, 2009, 2013, 2014, 2015, 2016
- International Conference on Machine Learning (ICML) 2008, 2009, 2010, 2011, 2012, 2014
- Artificial Intelligence and Statistics Conference (AISTATS) 2010, 2011, 2012, 2013, 2015, 2016, 2017
- Conference on Uncertainty in Artificial Intelligence (UAI) 2011, 2013, 2014
- International Joint Conferences on Artificial Intelligence (IJCAI) 2009
- International Conference on Robotics and Automation (ICRA) 2015
- Robotics: Science and Systems (RSS) 2015

**Other Professional Activities:**

I have been a reviewer for many international journals and conferences including Transactions on Pattern Analysis and Machine Intelligence, International Journal in Computer Vision, Journal of Machine Learning Research, Transactions on Graphics, Computer Vision and Image Understanding, Image and Vision Computing, SIGGRAPH, SIGGRAPH-ASIA, etc.

**E. OTHER RELEVANT INFORMATION****Media:**

Our CVPR'15 paper *Neuroaesthetics in Fashion: Modeling the Perception of Beauty* received a lot of attention from the media. It has been featured in a number of News websites, Fashion magazines and International news. We received numerous requests for interviews. In the following I summarize some of these articles

**News Websites (June-July, 2015)**

1. New Scientist
2. Quartz
3. Tech Times
4. Wired (UK)
5. Mashable
6. AOL News (with video)
7. Huffington Post UK (with video)
8. Huffington Post Canada, MSN (Canada)
9. Protein
10. Yahoo (Canada)
11. Science Daily
12. Daily Mail (UK)
13. PSFK
14. Toronto Star (online and printed edition)
15. Gizmag
16. TheRecord.com
17. iDigitalTimes

**Fashion websites / news: (June-July, 2015)**

1. Harper's Bazaar
2. Glamour
3. Elle
4. Cosmopolitan (UK)
5. Marie Claire
6. Fashion Magazine

7. Yahoo style
8. Red Magazine (UK)
9. The Pool (UK)
10. FashionNotes
11. Styleite
12. Health Beauty Life

**International news:** (June-July, 2015)

1. Vogue (Spain)
2. Woman (Spain)
3. Stylebook (Germany)
4. Wired (Germany)
5. Jetzt (Germany)
6. Ansa (Italy)
7. La Gazzetta (Italy)
8. CenarioMT (Brazil)
9. Amsterdam Fashion (NL)
10. Marie Claire (France)
11. Fashion Police (Nigeria)
12. Nauka (Poland)
13. Pluska (Slovakia)
14. Pressetext (Austria)
15. PopSugar (Australia)
16. SinEmbargo (Mexico)

**Television and radio:**

1. RTVE (Spanish)

**News** (May, 2016)

- MovieQA: Understanding Stories in Movies through Question-Answering  
This paper was featured in MIT Tech Review, and NVIDIA Developer's news

**News** (April, 2016)

- Raising stars article at University of Toronto

**News Websites** (June, 2013)

- New Scientist article about localization in self-driving cars