

## Fanny Chevalier

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**Nationality:** French  
**Languages:** French and English  
**Date of birth:** April 3rd, 1981  
**Marital status:** Single, no child

## Current Position

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Since January  
2010

**Postdoctorate Fellow, Ontario College of Art and Design University**  
*Information Visualization, Data-Driven Design, Text mining*  
Advisor: President Sara Diamond

## Working Experience

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January 2008 -  
December 2009

**Postdoctorate Fellow, Microsoft-INRIA Joint Center**  
*Interactive Visual Interfaces, Information Visualization and Human-Computer Interaction*  
INRIA Saclay (research project-team Aviz)  
Advisor: Professor Jean-Daniel Fekete

September 2007 -  
December 2007

**Attaché Temporaire d'Enseignement et de Recherche (equivalent to Teaching Assistant), University Institutes for Technology / Université Bordeaux 1**  
*Visualization of evolving data*  
INRIA Bordeaux (research project-team Gravit )

September 2004 -  
December 2007

**Ph.D. applicant, LaBRI (Laboratoire Bordelais de Recherche en Informatique)**  
*Graph comparison, content-based image/video retrieval, visualization of evolving data*  
Universit  Bordeaux 1

## Education

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2004 -2007

**Ph.D. in Computer Science, Universit  Bordeaux 1**  
*Recognition of Quasi-Similar Patterns in Graphs: Heuristic and Applications*  
INRIA Bordeaux (research project-team Gravit ), Bordeaux, France / Laboratoire Bordelais de Recherche en Informatique (LaBRI)  
Advisors: Professor Maylis Delest and Professor Jean-Philippe Domenger

2003 -2004

**DEA (equivalent to a M.Sc.) in Computer Science (Multimedia), Universit  Bordeaux 1**  
*Object Recognition in very Low-resolution Video*  
Internship at LaBRI (Laboratoire Bordelais de Recherche en Informatique), Bordeaux, France  
Advisor: Professor Jenny Benois-Pineau

## Refereed Papers in International Journals

- [J4-C8] J. Zhao, F. Chevalier, E. Pietriga and R. Balakrishnan **Exploratory Analysis of Time-Series with ChronoLenses**, *IEEE Trans. Visualization & Comp. Graphics (Proc. InfoVis)*, Oct. 2011. 10 pages (In press).  
[Acceptance rate : 26% (44/172)]
- [J3-C5\*] A. Bezerianos, F. Chevalier, P. Dragicevic, N. Elmqvist and J.D. Fekete **GraphDice: A System for Exploring Multivariate Social Networks** *In Computer Graphics Forum (Proc. EuroVis)*, 10(3):863-872, 2010.  
[Acceptance Rate 29% (48/164)]
- [J2] F. Chevalier, M. Delest and J.P. Domenger **A heuristic for the retrieval of objects in video in the framework of the rough indexing paradigm** *Signal Processing: Image Communication (SPIC)*, 22:622-634, 2007
- [J1] F. Chevalier, J.P. Domenger, J. Benois-Pineau and M. Delest **Retrieval of objects in video by similarity based on graph matching** *Pattern Recognition Letter*, 28(8):939-949 - Jun 2007

## Refereed Full-Length Papers in International Conference Proceedings

- [C9] P. Dragicevic, S. Huot and F. Chevalier **Glimpse: Animating from Markup Code to Rendered Documents and Vice-Versa**, *UIST '11: ACM Symposium on User Interface Software and Technology*, Oct. 2011. 6 pages (In press)
- [C7] J. Zhao, F. Chevalier and R. Balakrishnan **KronoMiner: Using Multi-Foci Navigation for the Visual Exploration of Time-Series Data**, *CHI '11: Proceedings of the SIGCHI conference on Human Factors in computing systems*, pp. 1737-1746, May 2011.  
[Acceptance rate : 26% (400/1540)]
- [C6] N. Boukelifa, F. Chevalier and J.D. Fekete **Real-time Aggregation of Wikipedia Data for Visual Analytics** *VAST'10: Proceedings of the 2010 IEEE Symposium on Visual Analytics Science and Technology*, pp. 147-154, Oct. 2010.  
[Acceptance rate : 22% (26/94)]
- [C4] N. Riche, B. Lee and F. Chevalier **iChase: Supporting Exploration and Awareness of Editing Activities on Wikipedia** *AVI '10: Proceedings of AVI 2010*, pp.56-66, May 2010.  
[Acceptance rate : 20% (27/133)]
- [C3\*] F. Chevalier, P. Dragicevic, A. Bezerianos and J.D. Fekete **Using Text Animated Transitions to Support Navigation in Document Histories** *CHI '10: Proceedings of the SIGCHI conference on Human Factors in computing systems*, pp. 683-692, April 2010.  
[Acceptance rate : 22% (302/1346)]
- [C2\*] F. Chevalier, S. Huot and J.D. Fekete **WikipediaViz: Conveying Article Quality for Casual Wikipedia Readers** *PacificVis'10: Proceedings of the IEEE Pacific Visualization Symposium*, pp. 215-222, March 2010.  
[Acceptance rate : 31%]
- [C1\*] T. Moscovich, F. Chevalier, N. Henry, E. Pietriga and J.D. Fekete **Topology-Aware Navigation in Large Networks** *CHI '09: Proceedings of the SIGCHI conference on Human Factors in computing systems*, pp. 2319-2328, April 2009.  
[Acceptance rate : 24% (277/1130)]

## Refereed Short-Length Papers, Technical Notes, Posters in International Conference Proceedings

- [S1\*] F. Chevalier and S. Diamond **The Use of Real Data in Fine Arts for Insight and Discovery: Case Studies in Text Analysis** *IEEE VisWeek 2010 Discovery Exhibition*, Oct. 2010.

## Refereed Papers in International Workshops

- [W2] F. Chevalier, D. Auber and A. Telea **Structural Analysis and Visualization of C++ Code Evolution using Syntax Trees** *IWPSE '07: Proceedings of the International Workshop on Principles of Software Evolution*, pp. 90-97, 2007. [Acceptance rate : 23%]
- [W1\*] F. Chevalier, M. Delest and J.P. Domenger **A heuristic for the retrieval of objects in low resolution video** *CBMI '07: Proceedings of International Workshop on Content-Based Multimedia Indexing*, pp. 144-151, 2007, \* **Best student paper award** \* [Acceptance rate: 22%]

## Refereed Papers in International French-speaking Conference Proceedings

- [F2\*] F. Chevalier, S. Huot and J.D. Fekete **Visualisations de mesures agrégées pour l'estimation de la qualité des articles Wikipedia** *EGC'10 : Actes de la Conférence Internationale Francophone en Extraction et Gestion des Connaissances*, pp. , Jan. 2010. [Acceptance rate : 23%]
- [F1\*] F. Chevalier, M. Delest and J.P. Domenger **Recherche de motifs quasi-similaires dans des graphes** *EGC '08: Extraction et Gestion des Connaissances*, pp. 1-14, 2008.

## Thesis

- [Thesis] F. Chevalier **Reconnaissance de motifs quasi-similaires dans des graphes : heuristique et applications** *PhD thesis, Université Bordeaux 1, 2007*

## Press

Radio Interview: France Info (Info Science) on graph navigation techniques  
<http://www.aviz.fr/audio/fanny-franceinfo.mp3> (in French)

## Public talks

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(These do not include some 10-15 semi-formal talks and demos given internally to INRIA Bordeaux, INRIA Saclay, OCAD University and DGP lab, Univeristy of Toronto between 2004-2011)

### The use of smooth animated transitions and simple interactions in InfoVis to support rich visual exploration

- [T4] November 17, 2010 (invited talk): University of Ontario Institute of Technology (UOIT), Oshawa, Ontario.

### Diffamation: Using Text Animated Transitions to Support Navigation in Document Histories

- [T3] November 3, 2010 (invited panelist) "Centre on Innovation for Information Visualization and Data Driven Design - Information Visualization for Text Analysis" panel, part of the CASCON 2010 conference, Centre for Advanced Studies Research, IBM Canada Software Laboratory, Markham, Ontario.
- [T2] May 11, 2010 (invited keynote speaker) plenary session of the Ubuntu Developer Summit in Brussels, Belgium.

### Introduction to Information Visualization

- [T1] May 25, 2010 (workshop co-leader): Centre for Innovation in Information Visualization and Data Driven Design, OCAD-University, Toronto, Ontario.

## Teaching Experience

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**Lecturer** University of Toronto / Ontario College of Art and Design University, Toronto, Ontario

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**DIGF 6B07 - Data Visualization** (Fall 2011) – Co-instructor (\*)

20h lecture + 16h guided class, Graduate students from OCAD-U, University of Toronto and Industrials

**DIGF 6B13 – Sketches and gesture-based interfaces for design** (Fall 2011) – Co-instructor (\*)

20h lecture + 16h guided class, Graduate students from OCAD-U, University of Toronto and Industrials

(\*) First term of the new Graduate Program launched at OCAD University. As a co-instructor of this course, I had responsibility of creating and delivering lectures, setting and grading assignments and examinations.

**Lecturer / Teaching Assistant** University Institutes for Technology, Dep. Of Computer Sciences, Bordeaux, France

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**Computer Graphics** (2006-2008) – Instructor (\*)

10h lecture + 10h guided class, 3<sup>rd</sup> year Undergraduate (Licence spe. Multimedia)

12h lecture + 12h guided class, 2<sup>nd</sup> year Undergraduate (2<sup>nd</sup> year Diploma of higher education)

**Advanced databases** (2006-2007) – Teaching Assistant

32h guided class, 2<sup>nd</sup> year Undergraduate (2<sup>nd</sup> year Diploma of higher education)

**Graphs and algorithms** (2005-2007) – Instructor (\*)

8h lecture + 16h guided class, 2<sup>nd</sup> year Undergraduate (2<sup>nd</sup> year Diploma of higher education)

**Initiation to algorithmic and programming** (2004-2006) – Teaching Assistant

130h guided class, 1<sup>st</sup> year Undergraduate (1<sup>st</sup> year Diploma of higher education)

(\*) As instructor for the course, I had full responsibility for all aspects of the course: preparing and delivering lectures, setting and grading assignments and examinations, and maintaining course material and website.

As a *Monitrice de l'Enseignement Supérieur* 2004-2007 (equivalent to **Lecturer**), and *Attachée Temporaire d'Enseignement et de Recherche* 2007-2008 (equivalent to **Teaching Assistant**), I took active part of the discussions about the student hiring process as well as course restructuring. I was also involved in the creation of the Professional License in Multimedia, and was one of the pioneer instructors of the new program.

**Invited Guest Lecturer** (2010-2011) Ontario College of Art and Design University, Toronto, Ontario

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**Animated Transition in Information Visualization** (June 2010)

3h lecture, in the GDES 3B91 "Special Topic: Introduction To Data Visualization"

*Public:* all year Undergraduate students in art and design.

**Interactive Visualizations – Introduction to Information Visualization and Human-Computer Interaction** (Jan 2011)

3h lecture, in the SOSC 3B27 "Human Factors for Designers"

*Public:* all year Undergraduate students in art and design.

**Science Fair Animator** (Dec. 2008) Université Paris Sud, France

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**Awareness campaign for youth and the general public – Visualizing Harry Potter's social network** (Jan 2008)

One full day of activities and games surrounding the social network of Harry Potter: Manipulation of tangible graphs, use of collocated-collaborative network visualization tool on a large display [1].

*Public:* 8 to 12 years old kids, and general public.

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[1] P. Isenberg et al. **CoCoNutTrix: Collaborative Retrofitting for Information Visualization**. Computer Graphics and Applications: Special Issue on Collaborative Visualization, 29(5):44–57, September/October 2009.

As a Moniteur de l'Enseignement Supérieur (selected on the basis of record of achievement at school, admission rate 20% [2/10]), I received a Teaching Assistants' Training Program Certificate in 2006 after attending a series of seminars at the Centre of Introduction to Undergraduate Teaching (*Centre d'Initiation pour l'Enseignement Supérieur*), Bordeaux.

## Mentoring Student Experience

Students working in research projects under my direction:

**Jian Zhao** *PhD student in CS at the DGP lab, University of Toronto, supervisor: Ravin Balakrishnan, Fall-Spring 2010*  
Participatory design sessions, implementation of a prototype and conducted usability study (qualitative) to test interactive visual interfaces for time-series data (see [C7] and [J4]).

**Nikola Banovic** *MsC student in CS at the DGP lab, University of Toronto, supervisor: Khai Truong / intern at Autodesk Research, supervisor: Tovi Grossman, Summer 2011.* Design and realization of a research study on the customization habits of users on Graphic Interfaces.

**Symon Oliver, Guia Camille, Jarrod Wilson and Robert Tu** *MsC students in Graphic Design at OCAD University, Summer 2011.* Supervision and coordination of a Graphic Design research team, as part of the CIV-DDD (Centre for Innovation for Information Visualization and Data Driven Design) interdisciplinary project. Design and realization of Graphic Interfaces for Visualizing emotions in Social Media (in collaboration with York University. Industrial partners: Globe and Mail, RBC.

## Research-Related Activities

### “Nuit Blanche”, Toronto October 2011 – Distant collaborative TETRIS

Artistic joint project with OCAD University and University of Toronto. Design, development and realization of a TETRIS collaborative game involving 2 vans at different locations in the city, equipped with Microsoft Kinect and a main indoor Tetris game making use of blocks realized by participants in the vans.

<http://www.scotiabanknuitblanche.ca>

### VisMaster European Project

Co-scenarist, co-director and the main visualization developer of a short movie promoting Visual Analytics realized for the European project VisMaster and featuring the 131-megapixel display from the WILD project.

<http://www.vismaster.eu>

### Memberships

Member of IEEE and ACM since 2006.

## Service to the Research Community

### Program and Organization Committee

- Fast-forward chair, at the IEEE Vis and InfoVis Conference 2011.
- Program Committee Member of Work In Progress of the ACM CHI Conference 2011.
- Fast-forward Session Organizer, at the IEEE Vis and InfoVis Conference 2010.
- Organization Committee member of PariSTIC Workshop, Bordeaux, 2003.
- Co-founder, main organizer and webmaster of the Parisian Seminar on Information Visualization and Human-Computer Interaction (2008-2010)

Guests : Jeffrey Heer, Ben Shneiderman, Alex Telea, Neva Cherniavski, Frank Van Ham, Mary Beth Rosson, Nicolas Roussel, Petra Isenberg, Tobias Isenberg, Nicolas Garcia Belmonte.

Video showcase: HCI and Infovis video showcase.

<http://www.lri.fr/~chevalie/visuhciseminar.html>

## Paper reviewing

- ACM CHI 2010 (notes), 2011 (papers and notes, WiP, alt.chi)
- IEEE InfoVis 2009, 2010, 2011
- IEEE VAST 2010, 2011
- Eurographics/IEEE Eurovis 2009, 2010, 2011
- ACM-SIGCHI AVI 2010
- IEEE PacificVis 2010, 2011
- Graphics Interface 2011
- INTERACT 2011
- ACM Interactive Tabletops and Surfaces 2011
- IHM 2010, 2011 (French-speaking conference)
- IEEE Transactions on Visualization and Computer Graphics (TVCG), since 2008
- International Journal of Human-Computer Studies (Elsevier), since 2010
- Information Visualization, since 2011
- Journal of Real-Time Image Processing (Springer), since 2011
- Signal Processing: Image Communication on Content-Based Multimedia Indexing (Elsevier), since 2007
- Information Sciences (Elsevier), since 2007

## Awards

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- Best student paper award for paper presented at CBMI, Bordeaux, 2007 (see [W1]).

## Funding

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- Centre for Innovation for Information Visualization and Data Driven Design – 2 Funded Research Projects  
\$20.000 per project, held for 6 months
- OCAD University Post-doctoral Fellowship  
\$50.000 per year, held in 2010 for 2 years
- INRIA-Microsoft Post-doctoral Fellowship  
~ \$45.000 per year, held in 2008 for 2 years
- University Institutes for Technology (IUT Bordeaux 1) ATER (equiv. Teaching Assistant) Fellowship  
~ \$20.000, held in 2007
- University of Bordeaux 1 MENRT Scholarship (French governmental Graduate Scholarship)  
~ \$15.000 per year, held 3 years consecutively, 2004-2006
- University of Bordeaux 1 Moniteur d'Initiation à l'Enseignement Supérieur Scholarship  
(French governmental fellowship for selected Lecturers)  
~ \$ 4.000 per year, held 3 years consecutively, 2004-2006
- Undergraduate Scholarship (merit-based French governmental Scholarship)  
~ \$ 4.000, held in 2003

## References

(Additional references on request)

### President Sara Diamond

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### Professor Jean-Daniel Fekete

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[Jean-Daniel.Fekete@inria.fr](mailto:Jean-Daniel.Fekete@inria.fr)

### Professor Ravin Balkrishnan

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Toronto, Ontario, Canada M5S 3G4  
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