Chair
Digital Futures Initiative Search Committee
Faculty of Liberal Arts and Sciences
OCAD University
100 McCaul Street
Toronto, ON   M5T 1W1   Toronto, February 29, 2012

Application for Tenure-track position in Human-Computer Interaction and Tangible Interfaces

Dear Committee Chair,

I am pleased to send you my application for the tenure-track position in Human-Computer Interaction and Tangible Interfaces that was advertised. I am currently a postdoctoral fellow both at OCAD University and the University of Toronto, where I recently joined the dgp (Dynamic Graphics Project) group, one of the leading HCI Labs worldwide. I have completed my doctorate in the field of Data Visualization at the University of Bordeaux in 2007, and conducted further postdoctoral research at the INRIA-Microsoft Joint Centre in Paris, at the group AVIZ (Visual Analytics Project), a leading visualization lab in Europe.

My primary research focus is the design, implementation and evaluation of interactive visual interfaces for data exploration. My research explores novel interaction techniques and tangible devices as a means to enrich user experience during visual data exploration. Data visualization and HCI are intrinsically interdisciplinary research fields, in which it is necessary to acquire new knowledge pertaining to the potential users of the tools in question. My work is characterized by a user-centered design process for building systems/prototypes, where I involve potential users in a series of participatory design workshops, as well as questionnaire-based and ethnographic studies, to identify their needs and requirements. My strong publication record with co-authors from multiple international organizations illustrates my ability to produce high-quality research and my ability to build successful collaborations across organizations.

At OCAD University, I am involved in the CIV-DDD (Centre for Innovation in Information Visualization and Data Driven Design). My current research there focuses on the extraction and visualization of emotions in social media content to help business and online communities understand the shift from print to digital, and particularly onto social media. I am also actively involved in the DFI's research project *Tweetris*: a Kinect-based interactive game that we developed to study unconstrained whole body interactive systems. I am also interested in exploring embodied interaction with physical objects for digital art composition. In particular, I initiated a joint OCAD U and UofT research project that studies how small devices can be used as tangible reconfigurable brushes for digital painting on interactive surfaces.

I am very excited about the opportunity for deeper research collaborations with designers and artists as part of a faculty position at OCAD U. It is through these enriching collaborations that the boundaries between computer science and creative design can be blurred to explore new interactive experiences that can be most effectively developed and examined outside of a lab setting. At OCAD U, I am hoping to further several collaborations: I would welcome the opportunity to extend our existing research on text visualization with Sara Diamond and Martha Ladly at the CIV-DDD, and more deeply explore its emotion extraction component with Barbara Rauch. I feel that my knowledge and experience will be a natural fit and will have a high impact in the Digital Futures Initiative. I have already established close collaborations that I would like to deepen and extend in the future. In particular, I would be interested in extending my work on embodied interaction with Paula Gardner, and study with Emma Westecott how immersion in games relates to immersion in complex tasks such as data analysis. My interests also relate closely to the work of Kate Hartman on wearable devices, that I plan to examine with her for the purpose of data exploration. I am also excited about examining data visualization in urban environments, a topic that Patricio Davila has made significant contributions to. Finally I look forward to the opportunity to strengthen the fruitful research collaborations with institutions and industrial partners outside OCAD U and to seek out new opportunities for specific projects.

I am convinced that my skills and previous experiences will be a great asset to your program and complement your existing strengths in art and design - during the two years of my post-doc, I have shown high engagement at the University and brought change to its teaching curriculum by introducing a cross-listed course on Digital Sketching Interfaces for OCAD U and UofT students. I feel that my solid technical background will continue to benefit the program. By leveraging technical understanding of how digital media function and how design concepts are implemented, artists and designers enrolled in the Digital Futures graduate program have been able to better make use of their creativity while being more knowledgeable of its technical aspects. I have also gained valuable experience in classroom instruction to students with varying backgrounds, and in mentoring graduate and PhD students in both design and computer science. My students consistently refer to me as a passionate, careful, challenging, engaging, and accessible instructor. I look forward to contributing further to the university's educational mission with my expertise.

I have been a Toronto resident for two years, and will be eligible for permanent residency status within the next two weeks. I will send my application files as soon as I become eligible. I am very excited about the prospect of a faculty position at OCAD University. My current position as a postdoctoral fellow at both an Art & Design University and a Computer Science Department is a proof of my desire to strengthen the collaboration between disciplines. I look forward to the opportunity to continue contributing to the successful and thriving Canadian design, visualization and HCI research community.

Please find attached my application consisting of my CV, research and teaching statement. As my work is highly interactive in nature I do not include a static portfolio. I have the equivalent in the computer science research world: a set of project webpages for my projects that include brief descriptions, videos and further information. They can be found at http://fannychevalier.net

Enclosed are also copies of four selected publications, representative of my latest contributions. All my published articles are available from my public website. My papers in progress can be found at http://fannychevalier.net/InProgress. Please do not hesitate to contact me if you require additional information about my application. Thank you for considering me for this position. I am confident that I can continue to make a significant contribution to the program, and look forward to hearing from you.

Below is the contact information for my external referees:
    Ravin Balakrishnan, Professor at University of Toronto, ravin@dgp.toronto.edu
    Jean-Daniel Fekete, Professor at INRIA, Paris, Jean-Daniel.Fekete@inria.fr
    George Fitzmaurice, Senior Research Scientists at Autodesk research, George.Fitzmaurice@autodesk.com

Sincerely,

Fanny Chevalier