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

Current Position

Since January 2010 **Postdoctoral Fellow, Ontario College of Art and Design University**
Information Visualization, User and data-driven design, Text mining
Advisor: Dr. Sara Diamond

Since January 2012 **Postdoctoral Fellow, Dynamics Graphics Project Lab, University of Toronto**
Tangible interfaces, Interactive visual interfaces, Interaction techniques
Advisors: Pr. Ravin Balakrishnan and Pr. Karan Singh

Working Experience

September 2011 - **Lecturer, Digital Futures Initiative, OCAD University**
December 2011 *Courses: Data visualization, Digital Sketching*
DFI graduate program

January 2008 - **Postdoctoral Fellow, Microsoft-INRIA Joint Center**
December 2009 *Interactive visual Interfaces, Information Visualization and Human-Computer Interaction techniques*
Research project-team Aviz (Visual Analytics Project)
Advisor: Pr. Jean-Daniel Fekete

September 2007 - **Attaché Temporaire d'Enseignement et de Recherche (equivalent to Teaching Assistant),**
December 2007 **University Institutes for Technology, Université Bordeaux 1**
Visualization of temporal data
Research project-team Gravit  (Graph Visualization, Graph Mining, Information Visualization)
Advisor: Pr. Maylis Delest

Courses: Computer Graphics, Databases, Programming, Graph theory
Department of Computer Science

Education

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 )
Advisors: Pr. Maylis Delest and Pr. 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)
Advisor: Pr. 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** *In IEEE Transactions on Visualization & Computer Graphics (Proc. InfoVis 2011)*, 17(12):2422-2431, 2011
[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 2010)*, 29(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

- [C11] N. Banovic, F. Chevalier, T. Grossman and G. Fitzmaurice **Triggering Triggers and Burying Barriers to Customizing Softwares**, *CHI'12: Proceedings of the SIGCHI conference on Human Factors in computing systems, May 2012* (In press)
[Acceptance rate : 23% (370/1577)]
- [C10] S. Zhao, F. Chevalier, W.T. Ooi, C.Y. Lee and A. Agrawala **AutoComPaste: Auto-Completing Text as an Alternative to Copy-Paste**, *AVI'12: Proceedings of the International Conference on Advanced Visual Interfaces, May 2012* (In press)
- [C9] P. Dragicevic, S. Huot and F. Chevalier **Gliimpse: Animating from Markup Code to Rendered Documents and Vice-Versa**, *UIST'12: ACM Symposium on User Interface Software and Technology*, pp. 257-262, Oct. 2011.
[Acceptance rate : 25%]
- [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 IEEE Symposium on Visual Analytics Science and Technology*, pp. 147-154, Oct. 2010
[Acceptance rate : 22% (26/94)]
- [C5] N. Riche, B. Lee and F. Chevalier **iChase: Supporting Exploration and Awareness of Editing Activities on Wikipedia** *AVI '10: Proceedings of AVI 2010*, pp.59-66, May 2010.
[Acceptance rate : 20% (27/133)]
- [C4*] 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)]
- [C3] 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. , March 2010.
[Acceptance rate : 31%]

[C2*] 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%]

[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

[S6] G. Gali, S. Oliver, S. Diamond and F. Chevalier **Visualizing Sentiments in Business-Customer Relations with Metaphors** *CHI'12: Proceedings of the SIGCHI conference on Human Factors in Computing Systems, Extended Abstract, May 2012 (In press)*

[S5] D. Freeman, F. Chevalier, E. Westecott, K. Duffield, K. Hartman and D. Reilly **Tweetris: Play with me** *TEI'12: Proceedings of the International Conference on Tangible, Embedded and Embodied Interaction - Art Exploration*, pp. 319-320, Feb. 2012

[S4*] 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.*

[S3*] 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.

[S2] 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%]

[S1] 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%]

Other Publications

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

Under Submission

[US2] J. Zhao, F. Chevalier and K. Singh **Bi-brush: Painting On and Using Small Touch Devices as Dynamic Brushes with Interactive Displays**, *submitted to Designing Interactive Systems 2012.*

[US1] S. Oliver, G. Gali, F. Chevalier and S. Diamond **Discursive Navigation of Online Users**, *submitted to Designing Interactive Systems 2012.*

In progress

[P2] D. Freeman, F. Chevalier, N. Lapierre and D. Reilly **Tweetris: A Study of Whole Body Interaction During an Interactive Art Event**

[P1] F. Chevalier, P. Isenberg and J.D. Fekete **Force Feedback Double Sliders for Multimodal Data Exploration**

Press

I have been interviewed by France Info (Info Science) on graph navigation techniques
<http://www.aviz.fr/audio/fanny-franceinfo.mp3> (in French)

Teaching Experience

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

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

20h lectures + 16h guided class, Digital Futures Innovations graduate students

DIGF 6B13/CSC 2521 – Digital Sketching: Interaction, modeling and perception (Fall 2011) – Co-instructor

20h lectures + 16h guided class, Digital Futures Innovations graduate students

The two above classes are Digital Futures Innovation electives. As a co-instructor, 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

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

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

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

Advanced databases (2006-2007) – Teaching Assistant

32h guided class, 2nd year Undergraduate (2nd year Diploma of higher education)

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

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

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

130h guided class, 1st year Undergraduate (1st 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

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

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.

[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.

Mentoring Student Experience

Students that have been working on research projects under my direction.

PhD Students

- **Jian Zhao** – *PhD student in Computer Science at the dgp lab, University of Toronto*
Visual interfaces for time-series data (see [J4,C7]), Tangible devices for digital painting (see [US2])
- **Dustin Freeman** - *dgp lab, University of Toronto*
Study of whole-body interaction in an art exhibit (see [S5,P2])

Graduate Students

- **Nikola Banovic** – *dgp lab, University of Toronto / Research Assistant at Autodesk Research*
Study on the customization habits of users on graphic interfaces (see [C11])
- **Michael Glueck** - *dgp lab, University of Toronto / Research scientist at Autodesk Research*
Advanced scrollbars interaction and visualization
- **Stephanie Santosa** - *dgp lab, University of Toronto*
Digital painting on videos
- **Harjot Bal, Slavica Ceperkovic, Maayan Cohen, Reena Merchant, Gabe Sawhney, Phouphet Sihavong, and Navaneethan Sivabalaviknarajah** – *Digital Futures Initiative, OCAD University / Research Assistants at the Centre for Innovation in Information Visualization and Data-Driven Design*

Undergraduate Students

I have been mentoring over 10 undergraduate students in Computer Science and Graphic Design. Below, I list only the ones whose whom I have co-authored publications.

- **Symon Oliver** and **Guia Camille** - *OCAD University / Research Assistants at the Centre for Innovation in Information Visualization and Data-Driven Design*
Interactive visual interfaces for the visualization of emotions in social media (see [S6,US1]).

Public talks

(These do not include some 10-15 semi-formal talks and demos given internally to INRIA Bordeaux and Paris, OCAD and DGP between 2004-2012)

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.

Research-Related Activities

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>

Program and Organization Committee

- Fast-forward chair, at the IEEE Visweek Conference (InfoVis, Vis, VAST), 2011, 2012.
- Program Committee Member of Work In Progress of the ACM CHI Conference, 2011, 2012.
- Fast-forward Session Organizer, at the IEEE Vis and InfoVis Conference, 2010.
- Co-founder, 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), 2012 (papers and notes, WiP)
- IEEE Visweek (InfoVis, VAST) 2009, 2010, 2011
- Eurographics/IEEE Eurovis 2009, 2010, 2011, 2012
- ACM-SIGCHI AVI 2010, 2011
- 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

Awards

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

Funding

- Centre for Innovation for Information Visualization and Data Driven Design – 2 Funded Research Projects
\$20,000 per project, held for 6 months
- University of Toronto Post-doctoral Fellowship
\$20,000 per year, held in 2012 for 1 year
- OCAD University Post-doctoral Fellowship
\$20,000 per year, held in 2012 for 1 year / \$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