

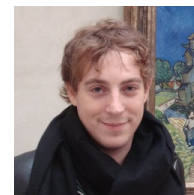
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29 years old

Driving license

**Benjamin Renoust**  
Ph.D Student in network  
analysis and visualization



## Education

*November 2009 - currently*

Université de Bordeaux I, CNRS UMR 5800 & INRIA Bordeaux Sud-Ouest (Gravite Team) - Bordeaux, France

Ph.D. Student in computer science, under a CIFRE scholarship associated with the Institut National de l'Audiovisuel.

Defense will be *December 18, 2013* : Analysis and Visualization of Edge Entanglement in Multiplex Networks (supervision of Guy Melançon and Marie-Luce Viaud).

*September 2007 - August 2009*

Korea Advanced Institute of Science and Technology (KAIST) - Daejeon, Republic of Korea  
Studies in computer science, followed by an internship of research in robotics and natural language processing.

*September 2005 - August 2008*

Université de Technologie de Belfort- Montbéliard (UTBM) - Belfort, France

Diplôme d'ingénieur: a 3 years degree in Computer Sciences (equivalent to B. Sc. and M. Sc.).

*September 2003 - August 2005*

IUT de Belfort-Montbéliard - Belfort, France

Diplôme Universitaire et Technologique (DUT): a 2-years technical degree in computer science (graduated head of the class).

## Work Experience

*January 2013 - Currently*

INRIA Bordeaux Sud Ouest - Bordeaux, France

Researcher at INRIA under the FP7 eMergence by Design (MD) project. Analysis and visualization of innovation networks

*November 2009 - November 2012*

Institut National de l'Audiovisuel - Paris, France.

Research in the field of graph mining and visualization. Application of graph models to document networks from the national audiovisual archive, to enhance the quality of annotations

and consultation of documents at Ina. Collaborating in the French ANR OTMedia project (2010CORD015). (Python, C++, javascript, using mainly the Tulip framework).

*February 2008 - August 2009*

Natural Language Processing and Computer Linguistic Laboratory, Korea Advanced Institute of Science and Technology - Daejeon, Republic of Korea

Internship (IITA scholarship). Research in the field of emotional robotics, application of the science of emotions to improve human-machine interactions. Expression of emotions through the body language using a humanoid robot (Bioid). Simulation of the mechanisms of empathy. (C++ and URBI mainly).

*September 2006 - February 2007*

Gostai - Paris, France

Intership. R&D, development of URBI engines for several robots (Pioneer II, ePuck, Khepara III, Varibo, mindstorms NXT, irobot Create...), development of a standard library for URBI (C++ and URBI mainly).

*April 2005 - June 2005*

Center for Molecular Design, University of Portsmouth - Portsmouth, Hampshire, England.

Internship. Development of a toolbox to show drugs likeness to help researchers in biomolecular design (application of AI techniques, C++ mainly).

## **Peer reviewed publications**

*Measuring group cohesion in document collections*, Benjamin Renoust, Guy Melançon, and Marie-Luce Viaud. The 2013 IEEE/WIC /ACM International Conference on Web Intelligence (WI), Atlanta, USA, Nov. 2013. Paper accepted, to be published.

*GosperMap: Using a Gosper Curve for Laying out Hierarchical Data*, Auber, David; Huet, Charles; Lambert, Antoine; Renoust, Benjamin; Sallaberry, Arnaud; Saulnier, Agnes, IEEE Transactions on Visualization and Computer Graphics, Nov. 2013.

*Assessing group cohesion in homophily networks*, Benjamin Renoust, Guy Melançon and Marie-Luce Viaud, ASONAM 2013, Niagara Falls.

*Document Corpus Analysis Based on Term Entanglement* Mélançon, Guy, Renoust, Benjamin, Viaud, Marie-Luce, XXXIII Sunbelt, Hamburg, 2013

*Mesurer l'intrication sémantique dans une collection de documents*, Benjamin Renoust, Guy Mélançon and Marie Luce Viaud, EGC-FGG Toulouse 2013.

Détection, visualisation et validation d'évènements médiatiques, FDCJFGG 2011 CNAM

Paris, Benjamin Renoust, Marie-Luce Viaud, Guy Mélançon, Presentation

*Mesure de cohérence dans la découverte et la visualisation d'évènements médiatiques*, Marami 2011, Grenoble, France Benjamin Renoust, Marie-Luce Viaud, Guy Mélançon

*Bringing Interactive Contextual Maps to Users for Information Retrieval*, NEM Summit 2010, Barcelona, Spain, Viaud Marie-Luce, Renoust Benjamin, Agnès Saulnier, Jérôme Thièvre

## **Talks**

*Assessing group cohesion in homophily networks*, Benjamin Renoust, Guy Melançon and Marie-Luce Viaud, Complex Networks seminar, September 2013, LIP6, UMPC, Paris.

*Cohesion measure for documents visualization*, ETS HIFIV meeting May 2012, Montreal, Canada, (presentation and collaboration under McGuffin's group meeting)

## **Other**

*What risk factor can explain project outcome?*, WorldBank Datadive, WorldBank, Washington D.C., February 2013 (invited researcher), with Ken Chomitz and Alex McKenzie.

*Q&A: The day a big data scientist met a development organization*, Milica R. Begovic. UNDP Voices from Eurasia, Feb. 2013 Interview.

*Big data and development organizations: What happens when you move from theory to practice?* Benjamin Renoust, Milica R. Begovic, and Giulio Quaggiotto. UNDP Voices from Eurasia, Jan. 2013 Workshop report.

*OTMedia: L'Observatoire TransMedia*, Nicolas Hervé, Marie-Luce Viaud, Jérôme Thièvre, Agnès Saulnier, Julien Champ, Pierre Letessier, Olivier Buisson, Alexis Joly, and Benjamin Renoust. Technical Report INA, OTMedia, ANR-10-CORD-000, Jun. 2013.

*Mesurer la cohésion sémantique dans les corpus de documents*, Guy Melançon, Benjamin Renoust, and Marie-Luce Viaud. Technical Report RR-8075 - HAL - INRIA , Sep. 2012.

## **Collaborations**

July 2013, LaBRI, May 2012, HIFIV, ETS, Montreal, Canada, collaboration with Christophe Viau, initiating interfacing Tulip and D3.js, project TulipPosy

Since February 2013, WorldBank Independant Evaluation Group, Kenneth Chomitz and Alex McKenzie, applications of network analysis for project risks identification

February 2013, United Nations Development Program - Montenegro, Milica Begovic, applications

of network analysis for development (2 blog entries produced)

May 2012, DIMACS, Rutgers University, New Brunswick, USA, Pr. James Abello on potential applications for entanglement measures, still ongoing

## **Supervision**

May-July 2013, Fabien Gélibert, master intern, software architecture of TulipPosy

May-July 2013, Anne Laure Mesure, master intern, interfacing TulipPosy

April-September 2013, Jocelyn Forest, engineer intern, working on applications of network analysis for the WB-IEG.

## **Lectures**

*January 2013 - June 2013*

Conservatoire National des Arts et Métiers (CNAM), Bordeaux, France

NFA007 (méthodes pour l'informatisation), lecturer in data modelisation, full course

Université de Bordeaux I, Bordeaux, France

PDP (Projet de programmation), project tutor

## **Projects**

*Since May 2012*

TulipPosy, a web based framework for visual analytics of bipartite graphs: d3.js-based HTML5/JS client side, tulip-based Python server side. Creator, main contributor.

*Since 2010*

Tulip, a framework for huge graph visualisation. Contributor.

## **Languages**

French: Native language

English: Advanced, fluent (945 TOEIC equivalent, scored 896, 98.42% TEPS)

→ Technical ability for paper writing

Korean: Average (conversational)

Spanish: Notions

German: Notions

## **Other Experience**

*January 2009 - March 2010*

Co-founding of MA-MON, an art-work company based in South Korea (under the registration number 302-04-34568), closed in 2010.

*August 2009 - November 2009*

Independant work in between contracts : English-to-French translations + Joomla-based web design for the Learning Agency Network

## **Hobbies**

Travelling, tea, gardening, reading, photography, cinema, music, arts, judo/ju-jitsu