

To strengthen your research team

Thomas TRIPLET

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Citizenship: French (Canadian permanent resident)

EDUCATION

2007 – 2009 Ph.D. in Computer Science, Bioinformatics specialization.

University of Nebraska-Lincoln (NE), USA. Advisor: Dr. Peter Z. Revesz
Thesis: "Classification, Clustering and Data-Mining of biological data". GPA: 3.85/4

2004 – 2007 Master's degree and Engineer certificate in Computer Science

Grande École ENSICAEN (National Graduate School of Engineering) – Caen, France
Earned with distinctions and ranked #3 of the promotion. Minor: Image processing

2002 – 2004 Bachelor's degree in Science (*Classes Préparatoires aux Grandes Écoles*)

Lycée Chateaubriand – Rennes, France
Majors: Mathematics and Physics – Minors: Computer science, chemistry, engineering

EXPERIENCE

Since 2009 Post-doctoral Fellow

Centre for Structural and Functional Genomics, Concordia University, Montréal, Canada
Developing an online database to facilitate the sharing and the tracking of -omics data and experimental enzymatic characterization of fungal proteins
Designing a system biology database to integrate and analyze fungal -omics data.

2007 – 2009 Research Assistant – CSE Department, University of Nebraska-Lincoln, USA

2007 – 2008 Teacher Assistant – CSE Department, University of Nebraska-Lincoln, USA
Taught C++, PHP, MySQL, HTML and CSS for the CSE156 lab course (~45 students).

Summer 2008 Research Assistant – Biochemistry Department, University of Nebraska-Lincoln, USA
Developed a program for automatic cell tracking using computer vision techniques.

Summer 2007 Linux System Administrator and Research Assistant

Bioinformatics Core Research Facility, University of Nebraska-Lincoln, USA
Designed and administrated the new website, the MySQL database and the servers.

Summer 2006 Research Assistant – Technical University of Vienna, Austria

Developed a Matlab/C program to detect and track objects in video streams in real time.
Calibrated the cameras. Improved the detection rate above 90%.

Summer 2005 I.T. Manager – Nicholas O'Dwyer Ltd, Dublin, Ireland

Administrated the network (6 servers, 90 computers) and the MS SQL database.

SKILLS

Machine Learning	<i>Algorithms:</i>	SVMs, Decision trees, Bayesian classifiers, Neural nets
	<i>Reclassification:</i>	Data and Classification Integration, Temporal classification
	<i>Computer Vision:</i>	Mean-Shift and Soft-assign algorithms, Camera calibration
Databases	<i>Relational:</i>	SQL language. MySQL, PostgreSQL, MS SQL
	<i>Constraint:</i>	Datalog language, MLPQ system
	<i>Design:</i>	Merise method
Bioinformatics	Genome assembly, Imaging, Markov models, “-Omics” data analysis, Sequence/Structure comparison, Phylogeny	
Java	J2SE, JSP, Applets, Servlets, JDBC, JUnit	
Development	<i>Modeling:</i>	UML, Design-patterns
	<i>Tools:</i>	Eclipse, CVS, Tomcat
Administration	Windows, Mac OS X, UNIX, Linux, AWK, PERL, shell, Cacti (SNMP tool)	
Web skills	Ajax, CSS, DHTML, Javascript, OWL (semantic web), PHP, RDF, RSS, XML	
Other Languages	C/C++, CaML, Lisp, PROLOG	
Other Skills	Cryptography, Compilers	

AWARDS AND FELLOWSHIPS

2008 – 2009	<i>Milton E. Mohr</i> fellowship for excellence in biotechnology
2007	“ <i>Beginning to make a difference</i> ” prize awarded by the University of Nebraska
2006 – 2007	ISEP fellowship
2006	ERASMUS fellowship
2002	Awarded “ <i>Approfondissement intellectuel</i> ” (Deeper intellectual development)
1998 – 2002	Earned 18 distinctions in high-school

SOCIETIES AND ORGANIZATIONS

Since 2009	<i>National Scholars Honor Society</i> member
2006 – 2009	Vice-president of the “ <i>International Student Organization</i> ” at UNL
Since 2004	Founder/C.E.O. of <i>Les Chevaliers Croisés</i>

COMMITTEE MEMBER

- 2011** International conference on Advances in Databases, Knowledge, and Data Applications (DBKDA 2012)
- 2010** Semantics in Data and Knowledge Bases international conference (SDKB 2010)
- 2010** Reviewer for the journal *Constraints*

LANGUAGES

French	Native speaker
English	Fluent
German	Basics
Latin/Greek	Basics

PEER-REVIEWED PUBLICATIONS

T. Triplet and G. Butler, **A benchmark of systems biology warehousing frameworks for effective data integration**, in preparation.

C. van Oostende, D. Guillet, T. Triplet, P. Wiseman, A. Geitmann, **Quantitative analysis of vesicle dynamics during plant cell cytokinesis**, in preparation.

T. Triplet, J. Powlowski, A. Tsang, G. Butler, **EnzymeTracker: a web-based system for sample tracking with customizable reports**, *3rd International Conference on Bioinformatics, Biocomputational Systems and Biotechnologies*, Venice, Italy (May 2011), accepted.

P. Revesz, T. Triplet, **Temporal Data Classification Using Linear Classifiers**, *Information Systems*, vol. 36 (1): 30-41 (March 2011).

M. Shortridge, T. Triplet, P. Revesz, M. Griep, R. Powers, **Bacterial protein structures reveal phylum dependent divergence**, *Computational Biology and Chemistry*, vol. 35 (1): 24-33 (February 2011).

T. Triplet, G. Butler, **Systems biology warehousing: challenges and strategies towards effective data integration**, *Proc. 3rd International Conference on Advances in Databases, Knowledge, and Data Applications*, St. Maarten, The Netherlands Antilles (January 2011).

T. Triplet, M. Shortridge, J. Stark, M. Griep, R. Powers and P. Revesz, **PROFESS: A Database System for PROtein Function, Evolution, Structure and Sequences**, *Database*, DOI 10.1093/database/baq011. Database 2010: baq011 (July 2010).

P. Revesz, T. Triplet, **Classification Integration and Reclassification using Constraint Databases**, *Artificial Intelligence in Medicine*, vol. 49.2: 79-91 (June 2010).

P. Revesz, T. Triplet, **Temporal Data Classification using linear Classifiers**, *Proc. 13th East-European Conference on Advances in Databases and Information Systems*, Springer-Verlag, Lecture Notes in Computer Science series, vol. 5739: 347-361, Riga, Latvia (September 2009).

P. Revesz, T. Triplet, **Reclassification of Linearly Classified Data using Constraint Databases**, *Proc. 12th East-European Conference on Advances in Databases and Information Systems*, Springer-Verlag, Lecture Notes in Computer Science series, vol. 5207: 231-245, Pori, Finland (September 2008).

CONFERENCES PRESENTATIONS AND POSTERS

T. Triplet, J. Powlowski, A. Tsang, G. Butler, **The EnzymeTracker, a platform for tracking cloning and expression of fungal enzymes**, *2nd Annual General Meeting for the Cellulosic Biofuel Network*, Ottawa, Canada (March 2010).

T. Triplet, M. Shortridge, M. Griep, R. Powers and P. Revesz, **PROFESS: A PROtein Function, Evolution, Structure and Sequence database**, *11th International Congress on Amino Acids, Peptides and Proteins*, Vienna, Austria (August 2009).

T. Triplet, P. Revesz, **Reclassification of Linearly Classified Data**, *5th Midwest Database Research Symposium*, Chicago, USA (October 2008).

T. Triplet, **State-of-the-art in Steganography**, *Nebraska Information Technology Security Day* (2006).