

Bryan St. Amour, Software Engineer

Coordinates

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<https://www.bryanstamour.com>

Technical Skills

- **Programming Languages:** C++, Haskell, C, Delphi, PHP, C#, Java, JavaScript, Ruby
- **Libraries:** Boost, wxWidgets, Qt, Ruby on Rails
- **Markup Languages:** HTML5, XHTML, CSS, XML, JSON
- **Operating Systems:** GNU/Linux, Windows, FreeBSD, OS X
- **Software:** IBM CPLEX, MySQL, Postgresql, sqlite, Microsoft Office, Libreoffice, IBM WebSphere, Microsoft Visual Studio, conan, vcpkg, cmake, git, svn
- **Other:** SQL, awk, sed, bash, Unicode

Committee Work

January 2018 – Present – **C++ Subject Matter Expert**
Member of Standards Council of Canada, serving on the mirror committee for ISO/IEC JTC1/SC22/WG21, also known as the C++ ISO committee.

Employment History

2019 – Present – **Senior Software Engineer, Tessonics**

Software development and architecture, mainly in C++. Legacy application maintenance. Project planning. Image processing. RESTful services. Customer support. Supervising junior software engineers.

2013 – 2019 – **Software Engineer, Tessonics**

C++, Delphi, PHP, HTML, CSS. HTTP servers for data collection and reporting. Server application deployment processes. Desktop support system development for embedded client management. Customer support.

2010 – 2018 – **Research Assistant, University of Windsor**

Developed new features for, and maintained, applications in Health data analytics. Was the initial software developer for the website innovatexchange.ca. Assisted with the installation and administration of lab computers, networks, and databases. Assisted students with software projects.

2009 – 2012 – **Software Developer, University of Windsor**

Developed speech applications for the MySpeechweb Project in XHTML+Voice. Implemented algorithms in Computational Geometry for curve reconstruction. Implemented various algorithms in management science, from warehouse optimization to specialized bin packing techniques. Implementations were done in a mixture of C++ and CPLEX.

Summer 2008 – **Software Developer (co-op), Windsor Mold Group**

Developed in-house web applications in PHP for monitoring various systems. Assisted in the design and initial implementation of a new application for tracking new business orders.

Summer 2007 – **Software Developer, Short-term Contract**

Extended existing third party software to support new business use cases. Developed a mixture of tools for the processing and interpretation of sales information.

January – September 2006 – **Junior Software Developer, Synergy Plus Solutions**

Developed applications for key clients in Visual Basic.

Education

2015 – 2019 – **PhD Candidate, Computer Science, University of Windsor** (incomplete)

Research: Artificial Intelligence. Extending probabilistic abductive query algorithms to Subjective Bayesian Networks. Co-supervised by Dr. Robert Kent and Dr. Roman Maev.

2011 – 2014 – **Msc, Computer Science, University of Windsor**

Research: Artificial intelligence. The design and analysis of artificial reasoning systems.
Thesis: **A Subjective Logic Library Constructed Using Monadic Higher Order Functions**.
Supervised by Dr. Robert Kent.

2006 – 2010 – **BCS Honours, Computer Science, University of Windsor**

Honours project: Empirically measuring the computational efficiency of graph algorithms for detecting 3-edge connected components. Supervised by Dr. Peter Tsin.

Publications

Theses

Bryan St. Amour: A Subjective Logic Library Constructed Using Monadic Higher Order Functions. Msc Thesis. University of Windsor, 2014.

Journals

Mostaghimi Ghomi, Hanan, **Bryan Gary St Amour**, and Walid Abdul-Kader. "Three-dimensional container loading: A simulated annealing approach." International Journal of Applied Engineering Research 12.7 (2017): 1290.

Conferences

Richard A. Frost, **Bryan St. Amour**, Randy J. Fortier: An Event Based Denotational Semantics for Natural Language Queries to Data Represented in Triple Stores. ICSC 2013: 142-145

Asish Mukhopadhyay, Harshit Rathod, Chong Wang and **Bryan St. Amour**, Certifying curve reconstruction algorithms, In Proceedings of the 26th EuroCG Workshop on Computational Geometry, pages 225-228 , Dortmund, Germany, March 22-24, 2010.

Kent, R. D., McCarrell, J., Paquette, G., **St. Amour, B.**, Kobti, Z., & Snowdon, A. W. (2010). Application of Subjective Logic to Health Research Surveys. In Advances in Intelligent Decision Technologies (pp. 383-392). Springer Berlin Heidelberg.

Technical Reports

Xin Wu, Xijie Zeng, **Bryan St. Amour** and Asish Mukhopadhyay. Robust implementation of an algorithm to compute a convex polygon stabber of a set of isothetic line segments. Technical Report, School of Computer Science, University of Windsor, July 2009.

Preprints

Xin Wu, Xijie Zeng, **Bryan St. Amour**, Asish Mukhopadhyay, Robust Computation of a Minimum Area Convex Polygon Stabber of a Set of Isothetic Line Segments. <https://arxiv.org/abs/1609.01662>

Interests

Martial Arts, GNU/Linux, Emacs, Science Fiction, Desktop Publishing.

References available upon request.