BRYAN ST. AMOUR

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EXPERIENCE

Subject Matter Expert - C++
ISO/IEC JTC1 SC22 WG21

2018 – Present
C++ ISO Committee

- Representing Canada as a voting member on the C++ ISO committee.
- Assistant chair for SG14 (low latency) representing the needs of the finance industry (spring 2024 – present).

Senior Software Engineer
London Stock Exchange Group – Data and Analytics

Oct 2022 – Present
Remote

- Developing low-latency stock exchange data feed handlers in C++17.
- Developing a suite of tools for filtering and capturing network packets in real-time, for further analysis and normalization.
- Interfacing with various high performance networking hardware (e.g. Solarflare cards, Arista switches).

Senior Software Engineer
Tessonics Inc

Jan 2013 – Oct 2022
Windsor, ON

- Mentoring junior engineers.
- Giving internal lectures on the usage of modern C++.
- Leading the design and development of a RESTful web service for data collection and reporting using C++17/20, Sqlite, Boost ASIO and Boost Beast.
- Developing desktop applications for managing ultrasonic devices using Delphi and C++17/20.
- Documentation writing, and customer support.
- Maintaining the company's core C++ library, as well as coding style guides.
- Managing various IT-related tasks about the office, including email support, running backups, and constructing a new build server.

Research Assistant, Various Roles
University of Windsor

May 2009 – Sept 2019
Windsor, ON

- Overseeing and participating in the construction of a new lab for Health Informatics, and managing its day-to-day operations.
- Developing a query browser for healthcare practitioners in a combination of C++11, XHTML, SVG, and JavaScript.
- Implementing various speech-controlled applications and games in Haskell, and X+V (Voice XML).
- Assisting in the design of 2D curve reconstruction algorithms and developing proofs of concept using Java, C++ and CGAL.

Software Developer and Research Assistant
University of Windsor, Department of Industrial Engineering

Jan 2009 – Jan 2013
Windsor, ON

- Implementing and benchmarking heuristic algorithms for combinatorial optimization problems using CPLEX and C++.
- Assisting graduate students in Industrial Engineering with literature review and algorithm design.

Software Developer (co-op)
Windsor Mold Group

May 2008 - Sept. 2008
Windsor, ON

- Developing and maintaining in-house web software for monitoring plant equipment in PHP, with some JavaScript.
- Co-designing and leading the development of an application to track the progress of new business orders using PHP, with a MySQL database, and lots of JavaScript, jquery, and very primitive AJAX.

Junior Developer
Synergy Plus Solutions

Apr. 2006 - Sept. 2006
Windsor, ON

- Writing custom software in Visual Basic 6 to extend various accounting packages, such as SAGE ACCPAC, and Netsuite Business One.
- Exploring migrating applications to VB.Net and C#.

EDUCATION

University of Windsor   Windsor, ON
Masters of Science, Computer Science   *Jan. 2011 – Sept 2014*
- Thesis: A Subjective Logic Library Constructed Using Monadic Higher Order Functions.
- Advisor: Dr. Robert D Kent

University of Windsor   Windsor, ON
Bachelor of Computer Science   *Sept. 2006 – Dec 2010*
- Honours Project: Implementing and benchmarking 3-edge connectivity graph algorithms.
- Advisor: Dr. Yung (Peter) Tsin

PROJECTS

Personal System Administration | *Linux, FreeBSD*   2006 – Present
- Experience managing various linux distributions, including: Debian, Ubuntu, Gentoo, and Slackware.
- I have been using Slackware Linux as my desktop operating system of choice at home since 2011.
- I host a personal mail and web server on FreeBSD. IMAP is provided by dovecot, SMTP via postfix. All websites are hosted on Apache. Prior to FreeBSD, the server ran Debian stable.

Various other software projects | *Haskell, C++, various other languages*   2006 – Present
- All of my side projects are hosted on GitHub: github.com/bstamour.

TECHNICAL SKILLS

Languages: C++ (especially modern C++), C, Haskell, Java, C#, HTML/CSS, PHP, Delphi, Ruby, JavaScript, Python, Scheme, Visual Basic
Libraries: Boost (ASIO, Beast, Spirit, Graph, among others), JCL, Win32, POSIX, wxWidgets, CGAL, CPLEX
Developer Tools: Emacs, Git, SVN, VS Code, Visual Studio, Eclipse, SQL, various UNIX tools and shell scripting languages
Operating Systems: Linux, Windows, FreeBSD, macOS
Other Software: LaTeX, Microsoft Office, LibreOffice

OTHER INTERESTS

Reading, blogging (occasionally), martial arts, playing retro video games, exploring new programming languages and paradigms.