

Education

- **University of Alberta** Edmonton, AB
M.Sc. in Computer Science *Completed, Convocating Fall 2010*
 - Thesis: Slimming Virtual Machines based on Filesystem Profile Data
 - Selected Coursework: Parallel and Distributed Systems, Single Agent Search, Software Service Systems, Sensor Networks
 - Awards: Government of Alberta Advanced Education and Technology Graduate Student Scholarship
- **University of Alberta** Edmonton, AB
B.Sc. Specialization in Computing Science *Graduation Date: Spring 2008*
 - Selected Coursework: Compiler Design, Security, Computational Science and Clusters, Software Process and Engineering, Web-based Information Systems, Database Management
 - Awards: NSERC Undergraduate Summer Research Award, Jason Lang Scholarship, Deans Honour Roll

Skills

Languages: Proficient: C, Java, Perl, HTML, XML
Knowledgeable: C++, PHP, Python, JSP, Javascript, CSS, \LaTeX
Familiar: Prolog, Scheme

Development tools: CVS, Subversion, Git, Emacs

Operating Systems and Environments: Debian, Ubuntu, RedHat, Fedora Linux

Certifications: Eucalyptus Cloud Platform Training

Experience

- **EMC** Edmonton
Software Developer *November 2010 - Current*
 - Development of EMC VPLEX high-availability virtualized storage solution
- **Department of Computer Science** University of Alberta
Research Assistant under Dr. Paul Lu *May 2009 - September 2010*
 - Research into virtual machine deployment and management (slimming), support for associated researchers in Bioinformatics
- **Department of Computer Science** University of Alberta
Teaching Assistant *September 2008 - April 2010*
 - *Security in a Networked World*, including firewall, server setup, and cryptography, under Dr. Ioanis Nikolaidis. <http://www.cs.ualberta.ca/undergraduate-students/course-directory/security-networked-world>
 - *Web-Based Information Systems*, including Javascript, PHP, Perl, SQL, HTML, CSS and JSP, under Dr. Osmar Zaiane. <http://www.cs.ualberta.ca/undergraduate-students/course-directory/web-based-information-systems>
 - *Software Carpentry*, including software development practices for scientists and engineers, taught in Python, under Drs. Gregory Wilson and Paul Lu. <http://software-carpentry.org/>
 - Organizing and consulting with students in course laboratory sections, organizing and presenting laboratory lectures, marking assignments

- Consulting and participation in TA workshop seminars, to provide training and support to new TAs
- Recipient of the Faculty of Graduate Studies and Research "Graduate Student Teaching Award"

- **Grand & Toy**

Edmonton, AB

- *Inventory Control Clerk/Customer Service Associate*

June 2003 - April 2008

- Customer service in retail and small business sales; inventory control, and account development and management
- Supervision and training of staff

Selected Portfolio

- **LexKCD**

- *CMPUT 415 Project: Compiler for a subset of Pascal*

- Built in a group of 2 for a final year class project, along with a comprehensive test suite. Compiled Pascal source to a JVM-like stack machine language
- Major contributions to the project included building the compiler's grammar and assembler production rules

- **Lilliputia**

- *Slimming Infrastructure for Virtual Machines (Implementation of M.Sc thesis)*

- Infrastructure for resource usage monitoring (through a custom Linux FUSE filesystem called StatFS), with a filtered cloning system, which copies an existing physical or virtual machine into a smaller clone.

Volunteer Activities

- **S.P.A.C.E, FABServatory, Department of Physics**

University of Alberta

- *Volunteer Observatory Guide*

September 2001 - Current

- Guiding guests through the University of Alberta's Physics Department's Observatory & Exhibition area, under the organizational umbrellas of *Students for the Promotion of Astronomy, Culture, and Education*, and the *FABServatory*
- Operation of equipment (14" and 12" Cassegrain scopes, solar filters, projection apparatuses)
- Making presentations and fielding questions, for guests of all ages, from pre-school to seniors

- **Undergraduate Association of Computing Science**

University of Alberta

- *Vice President Internal*

September 2007 - April 2008

- Communication and interaction with the Department of Computing Science on behalf of undergraduate students, including regular curriculum and department committee meetings, coordination of student events, and planning for the Department of Computing Science's first ever department-specific orientation for first-year students
- Volunteered time to general UACS events and fundraisers

Interests

Computing Science: Virtualization, Software Systems, XML, XMPP, Operating Systems

Physical Sciences: Astronomy, Astrophysics, Cosmology

Other: Cycling, Swimming, Baking, Science Fiction, Esperanto, Photography

References available upon request.