

TECHNICAL SKILLS

Programming Languages	Applications	Operating Systems	Programming Environments
C++	Stata, R	Linux (Debian, Ubuntu)	Eclipse
Java	Gnuplot	Windows XP	Emacs
Perl	BLAST		SVN, Mercurial
PHP	Phylip suite		Visual Studio 2008
MySQL	Mr. Bayes		
XML/XQuery	Rasmol		
Scheme	Clustal		
VBA	DSSP		

TECHNICAL PROJECTS

- **C++** – added support for textures for an XML-based 3D format, and support for a new JSON-based file format to Safe Software's FME
- **Java** – developed appointment book program with GUI in a team, using CVS (CPSC 211, mark: 95%), GUI sales interface for an SQL database in a team (CPSC 304, mark: 95%)
- **Perl** – created many applications for text parsing, data retrieval and calculations
- **PHP / MySQL** – created a web-based calorie-counting application
- **Scheme** – wrote language interpreters supporting closures, first-order functions, and type checking (CPSC 311)
- **VBA** – automated editing of times listed in Microsoft Word documents

EDUCATION

September 2007-present (expected graduation: May 2010)

The University of British Columbia

Bachelor of Computer Science - Integrated Computer Science

Statistics bridging module – Cumulative average: 90%

Relevant courses:

Introduction to Compiler Construction (in progress), Algorithms in Bioinformatics (in progress)

Definition of Programming Languages, Introduction to Theory of Computing (97%)

Introduction to Artificial Intelligence (95%), Introduction to Relational Databases (95%),

Multivariable Calculus, Introduction to Probability, Finding Relationships in Data (87%)

2002-2006

McMaster University, Hamilton, ON

M.Sc. - Computational Biology and Molecular Evolution

Supervisor: G. Brian Golding, Ph.D., Professor, Department of Biology

Thesis: Structural Determinants of Amino Acid Replacement Rate Heterogeneity

Explored the statistical relationship between evolutionary rates and physicochemical features of proteins, with emphasis on divergence between lineages.

1998-2002

University of Toronto.

Hon. B.Sc. - Molecular Plant Biology Specialist program.

WORK EXPERIENCE

September 2008 – December 2008, May 2009 – August 2009

Software Developer, Safe Software Inc.

Added features and fixed a variety of bugs in a GIS application (FME) in tools related to XML and JSON formats in C++, using Visual Studio 2008.

- Added texture reading and writing to CityGML format.
- Added support for ESRI's JSON file format with no format specification available.
- Resolved problems with new XQuery functionality to meet release standards, collaborated with the resident FME 'power user' to improve XQuery tool interface, wrote tool help and XQuery samples.

October 2006

Scripting, The Virtual Museum of Canada.

Learned VBA in two weeks to automate editing of Microsoft Word documents.

September 2002 - December 2003

Teaching Assistant, McMaster University, Department of Biology.

Assisted students in labs and marked assignments for several courses:

Cellular and Molecular Biology, Plant Biodiversity, and Bioinformatics.

Learned course material shortly before teaching it.

March 1999 - June 2000

Private Tutor for Tutoring Works, Toronto, Ontario.

Tutored grade 9 math and science students weekly on a one-on-one basis.

EXTRA-CURRICULAR

September 2007 – November 2007

Assembled and co-ordinated class teams for UBC Rec Day of the Longboat and Gladiator events.

September 2003 – August 2004

Social Convenor, Mc Master Biology Graduate Students' Society (BGSS)

Organized Oktoberfest trip, games for annual picnic, served as Master of Ceremonies for Christmas social dance

SPECIAL INTERESTS

Marathon cycling – completed 413 km ride in under 24 hours with BC Randonneurs

German – conversational level, three months immersion

Visual arts – drawing, painting, sewing machine embroidery