GEOFF HOLDEN

FULL STACK SOFTWARE DEVELOPER

geoff@geoffholden.com
St. John's, NL, Canada
(709) 727-0379

Summary

I'm a software developer with 10+ years of experience designing and writing code covering large scale object oriented designs all the way down to to tiny microcontrollers.

Skills

Development

I design and develop software for platforms of all sizes, including microcontrollers, embedded Linux, mobile devices, desktop computers, and distributed systems.

Operations

My background in system administration and operations gives me valuable perspectives on designing for deployment, configuration management and scalability.

Problem Solving

My natural tendency for problem solving and debugging assists with tracking down and rectifying issues in codebases and environments alike.

Technical

C / C++	Java	Ruby (on Rails)
Go	XHTML	CSS
JavaScript	Git / CVS / Subversion	SQL / MySQL
Microcontrollers	Linux	Android

Experience

Canadian Operational Network of Coupled Environmental Prediction Systems (CONCEPTS),

Fisheries and Oceans Canada (http://www.dfo-mpo.gc.ca)

Physical Scientist

St. John's, NL
2016

- Design and implementation of a web-based data visualization tool to process terabytes of model output and produce custom plots in real time.

SEAformatics Group,

Memorial University of Newfoundland (http://seaformatics.ca)

Research and Project Engineer

St. John's, NL
2010–2016

- Design and development of a power-efficient stack of microcontrollers to perform data acquisition, communications, and battery charging in a subsea environment.
- Development of a web-based data visualization application in Ruby on Rails.
- Deployment and testing of sub-sea acoustic modems.
- Software development on embedded Linux, Arduino, and Ruby on Rails.
- Investigation of sub-sea networking algorithms.
- Circuit and PCB design and fabrication.

Progress Software (http://progress.com)

Software Engineer

St. John's, NL
2007–2009

- Created a Requirement Traceability Matrix web application using Ruby on Rails
- Wrote a set of user interface guidelines to help avoid common mistakes, and increase inter-product consistency
- Fixed bugs and created demos for Apache ActiveMQ

- Bug fixing and feature development for Artix Data Services
- Produced and managed patches for the Artix product
- Bug fixing and new feature development for SonicMQ

Google Inc. (http://google.com)

Site Reliability Engineer

Mountain View, CA
2006–2007

- Automation of tasks through the development of scripts and administration tools.
- Configuration of system and network parameters.
- Monitoring of system stability and performance.
- Ensuring 24×7 operation of cluster.
- Comprehensive documentation of procedures.

Verafin Inc. (http://verafin.com)

System Architect

St. John's, NL
2004–2005

- Software design and development.
- Researching and implementing new technology.
- Responsible for the architecture and design of the technical environments (servers, storage, database, middleware, software, network and desktop) for the various developed and integrated applications.
- Responsible for the management of the network, servers, and workstations.

Education

Bachelor of Engineering in Computer Engineering

Memorial University of Newfoundland (http://www.mun.ca)

St. John's, NL
1998–2004

Memorial's computer engineering program covers a wide breath of topics, such as software development, analog and digital circuits, microprocessors, signal processing, telecommunications, and instrumentation and controls. It is also a co-operative education program that included six separate four month work terms in the industry.

Publications

- Cook, A., Masek, V., Press, A.,**Holden, G.**, Boyd, R. "The Seaformatics Technology Demonstration Project", *OCEANS '14 MTS/IEEE*
- **Holden, G.**, Cook, A., Masek, V. "Development of an Energy-Based Routing Protocol for Underwater Networks",*21st Annual Newfoundland Electrical and Computer Engineering Conference (NECEC 2012)*

Volunteer

IEEE

- IEEE Newfoundland and Labrador Section
  - Currently secretary
  - Served as membership development chair from 2014-2015
  - Served as treasurer from 2010-2013
  - Served as webmaster from 2008-2009
- Treasurer – 14th Canadian Workshop on Information Theory (CWIT 2015)
- Publications Chair – 22nd Canadian Conference on Electrical and Computer Engineering (CCECE09)
  - Verified that all the papers were formatted correctly for publication, and worked with the authors to fix any issues.
  - Compiled the papers for both the print and electronic proceedings.
  - Sourced USB keys for electronic proceedings and did the logo design to be printed on the keys.
  - Designed and implemented a web-based layout for the electronic proceedings on USB key.
  - Submitted the papers to be included in IEEE Xplore.
- Publications Committee Member – 17th International Engineering Management Conference (IEMC2005)

St. John's Linux Users Group

Was a key organizer and very active member of the group from 1998 to 2006. This involved both giving regular seminars and organizing a moderately sized group.