

OBJECTIVE

To obtain a dynamic development role in a product-oriented company.

EDUCATION

Bachelor of Engineering, Computer Science
Cornell University, Ithaca NY, May 2011

RESEARCH

My goal is to develop and extend the formal descriptions of programming languages within the context of category theory. Foundational topics include lambda calculus, dependent types, logic programming, theorem proving and object oriented frameworks. Implications are found in concurrent programming, program certification, language design and program analysis.

EXPERTISE

Design: Adobe Illustrator, Photoshop, HTML5/CSS/CoffeeScript
Languages: Java, Scala, Python, OCaml, Haskell, MATLAB, C, R, Visual Basic, Scheme
Services: AWS, EMR, Rackspace, ElasticHosts, Github, Bitbucket
Database: Postgres, MySQL, MongoDB, Cassandra
Servers: Tornado, CherryPy, Mongrel2, Snap, Apache, Node, Ocsigen
Frameworks: Hadoop, Tornado, Mongrel2, Android, ZMQ, Django, OpenGL, Latex, Swing
Operating Systems: OS X, XP, Vista, Ubuntu, FreeBSD, CentOS

EXPERIENCE

Data Scientist
Coherent Path

July 2014 - Present

- Launched a Hadoop cluster on a Canadian cloud service provider.
- Engineered a generalized sub-segmentation for categorical data-sets.
- Coded the front-end of Campaign Optimizer from first principles.
- Introduced Tornado server framework, asynchronous server methods.
- Participated in Scrum, fixed bugs, and addressed critical errors.
- Guided new hires in onboarding.
- Created conceptual plans for new products.

Consultant
SoftArc LLC

July 2013

- Worked with three different agencies on P2P networks.
- Contributed code for a spatial logic model-checker in Scala.
- Demonstrated enhancements to a P2P front-end.

VP Engineering
Rentenna, New York, NY

January 2013

- Implemented a transactional email service using RPC.
- Increased efficiency of image processing modules.
- Contributed full stack code enhancements and reviews.

Research Developer
Galois Inc, Portland, OR

June 2012

- Contributed to research in program certification technologies
- Constructed a Haskell binding to the Metasploit PTS suite
- Developed a prototype language for program fusion in Java and LLVM C

Founder/Developer: iQueueTV

Spring 2012

Portland Incubator Experiment, Portland, OR

- Built a screen-scraping architecture for tracking video distribution in blogs
- Built a Video Jukebox MVP for continuous streaming and playback
- Specified a recommendation engine based on passive user-data aggregation
- Constructed pitch decks and contractual agreements, coordinated meetings, built support

Teacher's Assistant: Compilers I

Winter 2011

Portland State University, Portland, OR

- Held twice-weekly laboratory hours for student project assistance
- Graded 200+ student projects (lexers, parsers, and type-checkers)
- Deployed automatic testing frameworks for rapid re-assessment
- Wrote supporting documents for the Eclipse, Flex, and CUP systems

Teacher's Assistant: Graduate Theory of Computing

Fall 2011

Portland State University, Portland, OR

- Held twice weekly office hours for homework discussion and review
- Graded 35+ students' solutions to weekly assignments
- Answered questions through e-mail and private meetings
- Held review sessions for midterms and finals

Application Developer

Summer 2011

Geoloqi, Portland, OR

- Coded the Geoloqi platform for Android from first principles
- Developed data-streaming technology for live positioning via GPS
- Specified a global service infrastructure for location-enabled applications

Lead Programmer

Fall 2010

Aeogea Inc, Ithaca, NY

- Deployed a Django application framework backed by a Cassandra database
- Implemented responsive video sharing with OEmbed and Vimeo interfaces
- Interacted with VC in presentations and monthly status reports

Programming Intern

Summer 2010

Clearwell Systems, Mountain View, CA

- Coded REST, MySQL, and SOAP interfaces to multiple databases
- Automated the migration of mixed binary and text documents
- Managed the transition of Clearwell onto the Jive corporate gateway

Faculty Support

Fall 2008

Donald Greenberg, Ithaca, NY

- Investigated touch-wall, OLED, and 3D projection technologies
- Contributed search and summations to course on Disruptive Technology
- Implemented a language-based 3D animation framework

Program Assistant / Residential Advisor

Summer 2008

Prefreshman Summer Program, Ithaca, NY

- Supervised 160 incoming Cornell freshmen
- Advised six students in the College of Engineering
- Reported student progress to Deans and Program Managers