

Education

Carnegie Mellon University (*Pittsburgh, PA*)

B.S. in Computer Science (2011), University Honors

Minors: Robotics, Language Technologies, Mathematical Sciences

Technical Skills

Operating Systems: GNU/Linux (Debian, Arch Linux, Gentoo), Mac OS X, FreeBSD, Solaris, Microsoft Windows

Programming Languages: C, C++, Java, Scala, SML, Perl, Ruby, Python, IDL, MATLAB, *nix shells, x86(-64) assembly

Web Technologies: JavaScript, HTML, CSS, ASP, PHP, JSP, node.js, Backbone.js, Ember.js

Experience

Lightbend (formerly Typesafe) (San Francisco, CA)

January 2016 to Present

Tech Lead - Play Framework

- Led the Play Framework project at Lightbend, including work on the new Lagom framework.
- Consulted for Lightbend's customers using Play, Akka, and Scala.
- Helped direct and implement performance, security, modularity, and usability improvements to Play.
- Aided in strategy and branding decisions around Play, Akka and Lagom.

Daltic (San Francisco, CA)

November 2013 – December 2015

Founder & Chief Technology Officer

- As a founder of the company, helped conceive the idea behind Daltic and determine company goals.
- Led development efforts on the frontend and backend for Daltic's banking risk management platform, managing several full-time developers in the process.

Kifi (acquired by Google) (Mountain View, CA)

January 2013 – October 2013

Software Engineer

- Helped design and build a multi-service distributed architecture by splitting our application into multiple modules and making it work robustly in a distributed environment.
- Built parts of the authentication framework and integration with multiple social networks.
- Built several features of the product on both frontend and backend, utilizing Scala and Play Framework.

Addepar (Mountain View, CA)

June 2011 – January 2013

Senior Software Engineer

- Worked on designing and building the client- and server-side components of our Client Portal, a node.js-based application that lets financial advisors share interactive reports and financial data with their clients.
- Created a REST API framework in Scala for our backend and integrated it with our Ember.js client.
- Developed flexible tools for marshalling Java and Scala objects to JSON and exposing them over our API.
- Helped design and build out the early parts of a service-oriented architecture, allowing us to decouple dependencies and provide better abstraction of business concepts.
- Developed a tool to automate our complex deployment process for multiple different types of clients and servers. This included a Web-based UI for configuration that integrated with Fabric scripts on the backend.
- Fixed and reported security issues in our software and in third-party software such as Express and Scalatra.

Facebook (Palo Alto, CA)

May 2010 – August 2010

Software Engineering Intern

- Helped implement components of the Facebook site using PHP, XHTML, CSS, JavaScript and other tools.
- Refactored Facebook's JavaScript and PHP libraries to make them easier to use and reduce latency.
- Worked as the primary developer for the new Account Settings pages, writing both the backend controller architecture and user interface components.

Carnegie Mellon University Human-Computer Interaction (Pittsburgh, PA) August 2009 – May 2010
Student Researcher

- Aided with studies concerning user-interface navigation by motor-impaired individuals.
- Helped develop a Web-based introductory Java programming course for Open Learning Initiative (OLI).

Johns Hopkins University Applied Physics Laboratory (Laurel, MD) May 2009 – August 2009
Software Development Intern - Technical Services

- Maintained and updated Web-based applications for product lifecycle management and work request systems, helping improve usability, browser compatibility, and standards-compliance.
- Created Web-based tools for managing employee training requirements using Java, JSP and JavaScript.

TruSky.com January 2008 – December 2009
Web Developer / Software Consultant

- Implemented PHP- and JavaScript-based websites for eBay sellers and small online retailers.

NASA Goddard Space Flight Center (Greenbelt, MD) June 2006 – August 2006
Intern - Software Developer

- Developed software to process and catalog Chandra X-ray images.
- Built tools to cross-reference point source data between the Chandra and XMM-Newton catalogs.

Glenelg Country School (Ellicott City, MD) Fall 2005 – Spring 2007
Database/Web application developer

- Worked on ASP/SQL-based applications to manage student information.
- Developed a Web application from scratch to keep track of community service hours.

Relevant Projects

Play Framework May 2013 to Present

- Regular contributor of features and bug fixes to Play Framework, currently the leading Scala Web framework.
- Worked on internal and external APIs, dependency injection support, and JSON improvements.

Bitcoin Mining March 2011 – June 2012

- Built hardware to mine bitcoin, a popular P2P digital currency, using graphics cards.
- Developed custom scripts that implemented “pool hopping”, taking advantage of the unfair reward distribution scheme of some mining pools to make greater profits over time.

Language Technologies Project August 2010 – February 2011

- Helped port the Flite text-to-speech program to the Android platform.
- Created and trained a customized Flite voice optimized for use with the navigation on Android.

Operating System Design and Implementation Fall 2009

- Implemented an operating system kernel in C and assembly for the x86 platform, with basic scheduling, pre-emption and memory management capabilities.
- Implemented a thread library that could be used with the OS kernel to write multithreaded applications.

References available upon request.