Christian Maher

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Work History

Conductor (May 2013—Present)
Software Engineer, Senior Software Engineer
- Design and develop systems of services with robustness, scalability, and ease-of-deployment in mind
- Led project to migrate JavaScript off of legacy bundling system on to modern modules
- Identify and address core problems with existing code to enhance developer productivity
- Prototype possibilities for new features and work with Product team to fully develop them
- Develop open-source code to help Conductor and the larger programming community
- Pioneer new client-side architecture for large-scale web app, prioritizing ease of development and maintainability
- Write exercises and documentation for new hire training and general knowledge distribution
- Provide tools and scripts to enable customer support and reduce strain for on-call engineer

Lockheed Martin (August 2012—May 2013)
Software Engineer Asc.
- Optimized speed of web content delivery through testing and profiling
- Developed behavior-driven-development library to help ensure project stability
- Encouraged and assisted in adherence to coding standards to enhance project maintainability
- Provided scripts for automation of common repetitive tasks

Applied Research Lab (May 2010—July 2012)
Software Engineer Intern
- Led project requiring conversion and deployment of existing Java software to the web as an applet with native library distribution and JavaScript interaction
- Developed visual analytic software using Java 3D for use in CAVE and other 3D environments
- Contributed to jReality, a library for Java CAVE development

Projects

backbone.hoard (https://github.com/cmaher/backbone.hoard) *JavaScript*
- A configurable solution for client-side caching and duplicate XHR consolidation
- Uses localStorage to cache server responses, but can be configured to use any web-based store
- Developed to support a system making potentially many duplicate XHRs in short succession

backbone.marionette (https://github.com/marionettejs/backbone.marionette) *JavaScript*
- The Backbone Framework. A set of libraries and patterns for easier Backbone application development
- Contribute code and discussion of future development
- Assist the community on the gitter and at Marionette Meetups
- Worked on Chrome DevTools extension for inspecting Marionette applications

ac_control (https://github.com/cmaher/ac_control) *Arduino C*
- Firmware for the Particle Photon to enable control of my air conditioner over the internet
- Blogged about the project experience
  (http://cmaher.github.io/posts/developing-with-the-particle-photon/)

Flexsym (https://github.com/cmaher/flexsym) *Ruby*
- An automata-based Turing-tarpit programming language for building non-deterministic Turing machines
- Uses rparsec to build a recursive-decent parser for generating the program's abstract syntax tree (AST)
- Interprets the AST in a Ruby-powered runtime environment to process states, stepping through non-deterministic branches in parallel

Bandit (https://github.com/cmaher/bandit) *Ruby*
- Multi-armed bandit framework for Rails; forked from bmuller/bandit
- Provided Softmax algorithm implementation

Education

The Pennsylvania State University—University Park (August 2008—May 2012)
B.S. Computer Science, B.S. Mathematics, Japanese Minor   Cumulative GPA: 3.48/4.00

Skills and Interests (For the Robots)

JavaScript · Ruby · Java · Scala · Clojure · SQL · CSS3 · HTML5 · Backbone · React · Arduino