Christian Maher

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Work History

Conductor (May 2013–Present)
Software Engineer

- 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 sharing
- Provide tools and scripts to enable customer support and reduce strain for on-call engineer

Lockheed Martin (August 2012—May 2013)
Software Engineer Asc.

- Used JavaScript, CSS, C#, and ASP.NET for development of dynamic database-backed web pages
- 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

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

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

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

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
- Working on Chrome DevTools extension for inspecting Marionette applications (https://github.com/MarionetteLabs/marionette.inspector)

Bandit (https://github.com/cmaher/bandit) — *Ruby*

- Multi-armed bandit framework for Rails; forked from bmuller/bandit
- Provided Softmax algorithm implementation
- Added support for cascading configuration options
- Contributed documentation and tests for developed features

SGAS (https://github.com/cmaher/sgas) — *Java*

- A simple game to teach basic principles of game architecture and development
- Used in a Penn State ACM student workshop prior to a game-programming competition
- Decouples the main game engine for reuse by other students

Biscuit (https://github.com/PennState-ACM/PennState-ACM-Biscuit) — *C*

- An API for the iRobot Create to simplify programming
- Created code for initialization and buffer communication
- Provided API design guidance

Skills and Interests (For the Robots)

JavaScript · Ruby · Java · Scala · Haskell · SQL · CSS3 · HTML5 · Backbone · Marionette · Rails