

MICHAEL SHAO

SOFTWARE DEVELOPMENT ENGINEER

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Optimize and develop impactful technical ideas and processes to change industries. Innovative thinking, with a penchant for solving user frustration.

Customer Focus: Solve user frustration through continuous iteration; adapting quickly to abstract and rapid changes to requirements. User Interface / Experience Design: Provide meaningful value for stakeholders while keeping focus on big picture and high-level goals.

Project Direction: Proven ability to lead and manage a wide variety of design and development projects in team and independent situations.

Skills

Creative Problem Solving
Quality Assurance
Debugging
Testing
Troubleshooting
Algorithm Design
JavaScript
jQuery
CSS
Spatial Analysis
Entrepreneurship
Business Strategy
Team Leadership
Product Development
Product Management
Strategic Planning
HTML 5
PHP
Software Project Management
Software Documentation
MySQL
Technical Documentation
Technical Writing
Java
SQL
Perl
Git
C++
HTML
SVN
Mercurial
Perforce

Employment

Amazon.com
Software Development Engineer

Seattle, Washington
Dec. 2019 to Current

I work on architecting & maintaining the data pipelines and the front-end widgets that surface compatibility information between base parts and their accessories to customers.

- Hack Sprint: implemented back-end HTTP REST service using API Gateway with Lambda Proxy integration.
 - Hack Sprint Redux: Built Native AWS integration for Code Review artifact integration with automatic XWiki publishing.
 - Organized & facilitated the weekly HCX Flash Talks meeting, which is a 30-minute presentation about literally any topic of interest. Topics included (non-exhaustive) "dumplings?", "churning (not butter)", and "homebrewing kombucha".
 - Launched a compatible landing page widget in Search without writing a single line of code.
 - Launched a feature on the detail pages of base printer and camera models to display a carousel of compatible accessories.
 - Designed and launched an extensible, automated data pipeline importer and publisher for compatibility records.
 - Current focus: help build the next generation of product compatibility and empower potential customers on the replacement part-finding journey!
- Outside of my primary responsibilities, I am also a:
- Security Certifier (April 2018 - Current)
 - Class Chats Volunteer Speaker & Coach (Aug 2020 - Current)
 - Interviewing Bar Raiser (July 2021 - Current)

Software Development Engineer

Seattle, Washington
June 2015 to Dec. 2019

I worked on the platform that connects third-party sellers on Seller Central (Amazon Marketplace) with logistics carrier services (DHL, DPD, FedEx, UPS, USPS, Royal Mail).

- Designed & implemented feature to filter logistics offerings based on shipper-specific traits and logistics company requirements.
- Implemented a system to allow self-service registration for merchants to enable easier access to logistics carrier relationships.
- Impact multiplier - successfully proposed and implemented learning modules designed to aid in the onboarding of 20 new hires (industry and college) onto the logistics space over a period of 6 months.
- Designed & implemented an asynchronous, configuration-driven manifest dispatcher to reduce latent operational calls through our service by 30%, with no lost data during the migration.
- Implemented transaction notification system to use SNS as a synchronous trigger for latent asynchronous (downstream) workflows (SWF).
- Designed & implemented self-throttling logistics transaction persistence component using AWS (DynamoDB & SWF).
- Implemented generic (Apache)FOP Extension using XMLGraphics to generate 2D barcode images using XSLT on PNG, PDF, and ZPL documents.

Riot Games
Software Engineering Intern, Player Accounts, Core Services

Santa Monica, California
May 2014 to Aug. 2014

- Signup API (Node.js) - built API for signup; connect to internal and external databases/servers; validate information across data channels.
- Hackathon (Thunderdome): Built "co-op vs. AI: draft mode" webapp (also Node.js) in 36 hours (w/ 8 other interns); led design & ideation sessions

Audible, Inc. (a division of Amazon.com)
Software Development Engineer in Test

Newark, New Jersey
Jan. 2014 to Apr. 2014

- Built & maintained test automation suite (Kindle) for Immersion Reading in Android.
- Designed a tool to track, manage, and control third-party devices across the company.

Datalot Inc
Web Developer

Brooklyn, New York
Jan. 2013 to Apr. 2013

Front-end web development (JS/jQuery/HTML/CSS); Interactive Voice Recording Menu redesign, event monitors & dashboards
Created initial documentation for all areas of the application, used by new hires, both in the business and technical areas.

Blue Coat Systems
Software Test Automation Engineer

Waterloo, Ontario
Jan. 2012 to Apr. 2012

Perl - creating test units for operating system software & features

(Test Automation) Software Engineer

Waterloo, Ontario
May 2011 to Aug. 2011

Automated testing using bash/Perl/Python

Projects

Automated Code Documentation

July 2020 to Current

For my organizations' hack sprint project in 2020, I led the design and implementation of a "code review analyzer" that automatically publishes internal Wiki pages using the contents of the code repository. The feature automatically publishes a "draft" on the initial code review publish event, and deletes the draft (publishing to the primary source page) on the merging of the code review into the deployment pipeline. The feature supports multiple Wiki formats (XWiki, MediaWiki, XHTML, HTML, and Markdown), as well as multiple nested pages.

Education

University of Waterloo
Honours Bachelor of Computer Science Computer Science (Co-op) 2014
History Minor

Activities

VeloCity - Resident

May 2011 to Dec. 2013

Participated and lived in VeloCity residence program.
Creating and cultivating impactful startups with Canada's most innovative university's entrepreneurial residence program.
Startups created / worked on: CodeCookie, shoptimize.

Volunteering

Federation of Students - Mathematics Federation Orientation Committee Member

Dec. 2011 to Aug. 2012

Planned and organized a campus-wide scavenger hunt for new Math students, as well as managed the ordering of food for 135 leaders and ~1500 students. Maintained and updated databases of information regarding leaders and new students, allowing for meaningful statistical analysis and adjustment of orientation procedures.
Moderated and managed content, layout, and design of the new student website, the leader blog, and publications made to bi-weekly student newspaper (MathNEWS).