William Song Dickson

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OBJECTIVE:

Continuing my passion for building highly performant and independent engineering teams responsible for delivering highly available, low latency, and maintainable distributed software systems for customers.

WORK EXPERIENCE:

Amazon Web Services - AWS Lambda, Seattle, WA **Software Dev. Manager** **April 2020 - Present**

- I lead the workload routing system in the AWS Lambda data plane which assigns more than 300 billion incoming function invokes per day to Firecracker MicroVMs to execute customer code for hundreds of thousands of customers.
- I am directly responsible for hiring, mentoring, coaching, and performance evaluations for the team of ten to fifteen engineers, defining the team's forward looking technical roadmap, and ensuring stable, agile, and maintainable service operations.
- I led the team in the completion of a multi-year, multimillion-dollar replacement architecture for the data plane service to increase resilience against zonal outages, while improving durability of routing during host failures with multi-second failover.

Amazon Web Services - AWS Lambda, Seattle, WA **Software Dev. Engineer** **August 2019 - April 2020**

- Responsible for feature design, development, and operational support of the workload routing system for the AWS Lambda dataplane, while maintaining goals of single-digit millisecond latency and over 99.9% availability.
- Improved latency of customer requests, root caused and implemented fixes to service scaling bottlenecks, and developed continuous deployment improvements for delivering software improvements, security patches, and features.

Amazon.com, Seattle, WA **Software Dev. Engineer** **August 2016 - August 2019**

- Designed and maintained software systems that handle price change events for third-party marketplace sellers on Amazon.com, handling real-time price error corrections, seller facing APIs, and dashboards for tens of thousands of price events per second.
- Engineered backend for Amazon Spark, an experimental social app for the Amazon retail website. Personally developed features including saving Spark discoveries to Amazon wishlists, interest suggestion APIs, and integration with Amazon Reviews.
- Led team scrum meetings to define the roadmap and estimate feature work. Mentored and delegated to junior engineers.

INTERNSHIP EXPERIENCE:

1stdibs.com, New York, NY **Front-End SDE Intern** **May 2015 – August 2015**

- Focus on the front-end development of the webapp and created chrome extensions for internal use and test debugging tools.
- Developed in JavaScript, HTML, and CSS using frameworks/extensions including React, Backbone, Node.js, Express and Sass.

United Technologies Aerospace Systems, CT **Software Engineering Intern** **May 2013 – February 2015**

- Served as an intern for UTAS in the Engine and Control Systems department working on the F-15 jet weapons control system.
- Extensively tested the PACS unit for software and hardware bugs through simulation rig integration tests and log analysis.

EDUCATION:

University of Connecticut, Storrs, CT

Major: Computer Science and Engineering – Bachelor of Science and Engineering
Minors: Math, Manufacturing and Engineering Management
GPA 3.84/4.00 Graduation Date: May 2016

OTHER WORK EXPERIENCE:

BECAT – University of Connecticut, Storrs, CT **HPC Cluster Administrator** **January 2013 – May 2016**

- Help with High Performance Computing (HPC) support and overall cluster management using the UNIX command line.
- Maintain software for HPC systems for staff, faculty and students in the BECAT Research Department at UConn.
- Provide technical support for users for any problem including virus issues, network problems, and malfunctioning hardware.

OTHER LEADERSHIP:

Upsilon Pi Epsilon – Honor Society for Computing Disciplines **President/Member** **May 2013 – May 2016**

- Plan group projects, manage funding of the group, host meetings, and work to create a collaborative and helpful community.
- Started a tutoring program to help computer science students at UConn with members of the group as volunteer tutors.

Tau Beta Pi – Engineering National Honor Society **President/Member** **May 2013 – May 2016**

- Organize events and fundraising**,** including new member induction, team building, and educational events.
- Provide web administration services using university resources to promote the group and communicate with members.

TECHNICAL SKILLS:

- Java, Go, Ruby, Rust, JavaScript, C, Perl, Python
- Unix, Bash, Git (VCS), JIRA, Eclipse, PHPStorm, Vim
- Microsoft Excel, Word, Outlook, Photoshop, Automation
- Scrum, CI/CD, Agile, Project Planning/Estimation