

# Alexander Zhu

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## Education

University of Illinois at Urbana-Champaign, Champaign, IL  
Bachelor of Science in Computer Engineering

2011 - 2015

- University Achievement Scholarship
- Lawrence Newton Wylder Engineering Scholarship

## Experience

Amazon.com, Inc., Seattle, WA  
Software Development Engineer II  
Software Development Engineer I

September 2017 - present

June 2015 - September 2017

- Launched and supported Amazon's first brick-and-mortar retail stores, Amazon Books in November 2015 and Amazon Go in December 2016 (Amazon-internal) / January 2018 (Public).
- Built and maintained the tools and dashboards that associates, store managers, and in-stock managers use for store operations, including shipments to and from the store, monitoring inventory state, and ensuring shelves stay stocked.
- Designed and led the team to build the replenishment system and tools to automatically detect when inventory in a front of house location is below an adjustable threshold and to direct an associate along an optimized pick path in back of house to collect the items that require restocking. Further improved this system to perform under the heavy stress of daily lunch rush and to give store managers the ability to adjust settings to adapt to quickly-changing business needs.
- After Microsoft deprecated Windows Mobile, led the effort to migrate the associate tools from a Windows app to a new Android hybrid Cordova/native app. Designed the app and the device ecosystem, maintaining improvements from the previous Windows iteration while improving on application security, logging and debugging, and device management. Wrote the core of the app, interaction with the the CA server, Android keystore, mutual TLS handshake, and hardware barcode scanner.
- Migrated the associate tools from the original Cordova Android thick client application with all client-side assets stored on-device to a UWP Windows thin client application pointed at an externally hosted endpoint, greatly simplifying code deployments. Built the interface between the device's hardware barcode scanner and the tools in Javascript.
- Built the tools to integrate with Amazon's purchase order system to allow stores to receive shipments from third-party vendors in addition to other Amazon fulfillment centers.

Meadowdale High School, Lynnwood, WA  
TEALS Volunteer Teaching Assistant

July 2017 - January 2018

- Collaborated with a team of a classroom teacher, two volunteer teachers, and another TA to teach AP Computer Science A to high school students.
- Encouraged and nurtured students to continue pursuing computer science in college and as a career by providing an industry perspective and experience to the classroom.

University of Illinois at Urbana-Champaign, Champaign, IL  
Network Technician

August 2012 - June 2015

- Assisted students in connecting to the university housing network over email, phone, and in-person calls to students' residence halls rooms as well as holding both lab-based and phone-based consulting hours.
- Built a staff profile pages webapp for internal use.

LinkedIn Corporation, Mountain View, CA  
Software Engineering Intern

May - August 2014

- Developed a highly-requested tool to enable customer service agents to create new school pages on LinkedIn without involving developers in that workflow. Improved the Rest.li schools resource for school creation.
- Overhauled the routing logic for school, alumni, notable alumni, and recommendations pages into a single abstract superclass to greatly clean up and simplify routers for school-related pages.
- Wrote scripts to automate, optimize, and introduce logging to the complex process of merging university pages and added school recommendations to the merge process.

TripAdvisor LLC, Newton, MA  
SEO Engineering Intern

May - August 2013

- Implemented SEO projects to increase search engine rankings and site traffic, and improve user experience, including cleaning up link obfuscation and improving the global navigation bar at the top of every page, contributing to a significant site-wide SEO improvement of an increase in hotel shoppers and unique monthly visitors.
- Designed and implemented reviews and ratings for menu items on restaurant pages using the TripAdvisor stack.

## **Skills**

- Java
- AngularJS
- Amazon Web Services
- Apache Cordova, Android, x86 assembly, C, C++, embedded systems, RTL coding, OpenGL, CAD