

# Andrew Gu

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 📄 andrewgu12

## Education

### University of Maryland, College Park

*B.S. Computer Engineering*

August 2014 - May 2018

- >> CMSC216 (Introduction to Computer Systems) Teaching Assistant
- >> CMSC412 Operating Systems, CMSC426 Computer Vision, ENEE439M Machine Learning, ENEE459B Reverse Engineering and Hardware Security, CMSC434 Introduction to Human Computer Interaction, CMSC414 Computer and Network Security

## Industry Experience

### Zirtue

*Senior Software Engineer -> Engineering Manager/Founding Engineer*

Dec. 2022 - Present

*United States*

- >> First full stack engineer hired. Inherited codebases from existing contractors and dove deep to spin myself up across the existing frontend, backend, and infrastructure as well as absorbing domain knowledge, documenting discoveries along the way. Fixed our legacy set of gRPC connected microservices to run on M1 macs & talk to our frontend which saved development time for other engineers.
- >> Conducted candidate interviews, customer calls & integrations, regularly interacted cross company to build relationships & help explain technical concepts, dove deep to investigate and fix any issues from web to mobile to backend to infrastructure.
- >> Managed two direct reports, reported directly to head of engineering & VP of Product, and participated in regularly scheduled meetings with executive team to give updates and plan next steps.
- >> Wrote technical documentation & technical plans + proposals to pitch to both technical and non-technical audiences.
- >> Planned & led development of a loan creation modal that will be embedded in partners' sites. Worked cross functionally to gather requirements and share progress to a mix of technical and non technical folks. Built in React and set up build + deployment infrastructure across Github Actions and AWS.
- >> Skills: TS/JS, Node.js, React, Kafka, AWS, MongoDB/DocumentDB, gRPC, management

### Storyblocks

*Senior -> Lead Software Engineer; Content Team & Work The Flow*

Jan. 2021 - Nov. 2022

*Arlington, VA*

- >> Joined small team in building out the Storyblocks Plugin for Adobe Premiere Pro. Conducted ground work and research into various features, project set up, and integration into our existing engineering ecosystem. Worked cross functionally with various departments to scope out requirements and wrote up technical research/development plans.
- >> Mentored junior engineers and conducted technical interviews for candidates.
- >> Led & built backend for automating bonus payouts to our contributors. The work involved interacting with designers, product managers, finance, data and other engineers.
- >> Wrote scripts to check for & maintain quality in our entire stock media library, participated in weekly on-call rotation & triaged incoming issues, built other features across our engineering ecosystem for both the front & backend.
- >> Built proof of concept media encoder with Go, ffmpeg, AWS Lambda during hackathon to improve existing encoders.
- >> Skills: JS/TS, PostgreSQL, MongoDB, React, ffmpeg, Go, Kafka

### Upside Business Travel

*Software Engineer, Apollo*

Aug 2019 - Jan. 2021

*Washington DC*

- >> Building features & fixing bugs covering shopping & booking inventory, security & monitoring across our React/Redux frontend backed by Go & Node.js microservices
- >> Contracted out as part of small team to Heartbeat Health to rebuild and launch their P2P video chat application during COVID-19 in their Kotlin & React Native powered mobile application.
- >> Planned, built and launched a brand new product targeted towards the PPP loans as part of small team in React & Node.
- >> Skills: React/React Native, TS/JS, Python, Kotlin, Go, microservices, SQL

### IBM

*Software Engineer, Daeja Viewone*

July 2018 - July 2019

*San Jose, CA*

- >> Collaborating with two senior engineers, two product managers, and a designer in the UK and US to redesign a thirty year old document viewer by writing features in Java EE and Google Web Toolkit (GWT) and performing infrastructure upgrades to ensure stability and compatibility
- >> Researched and reverse engineered PDFs and XML files to inject vulnerabilities for testing
- >> Led team of six to build a SQL Search plugin for an existing product in React and Redux as part of IBM's New Hire Developer program
- >> Skills: Java, React.js, Google Web Toolkit

## Volunteer

### Hackbright Academy & Thinkful

*Software Engineer Mentor*

September 2018 - Present

*United States*

- >> Clarifying concepts relating to software engineering and computing, performing code reviews for student's projects, giving advice and tips for coding interviews, providing overall moral support for the students, performing mock interviews
- >> Skills: Python, Javascript, PostgreSQL