

# CHARLIE ZHANG

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## EXPERIENCE

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**Google** Software Engineering Intern, Android Dialer Mountain View, CA, Jan – Apr 2019

- Built an internal **Android** tool that generates a snapshot of app and database state and uploads it to a secure Google service
- Created a **Python** CLI and test bundle that allows device partners to automatically verify app functionality on OEM devices
- Implemented new simulated call types in the Simulator service in **Java** for RTT, spam, emergency, and conference calls

**Webveloper** Software Engineer, Contract Remote, Sep – Dec 2018

- Set up and deployed a centralized logging stack for **Kubernetes** in production using **Elasticsearch**, **Fluentd**, and **Kibana**
- Introduced SSO for internal applications using **S.S.Octopus** and deployed it using **Helm** and **Terraform**
- Built a user authentication service using **Node** and **PostgreSQL** that serves requests from the Ambassador API gateway

**Wish** Infrastructure Engineering Intern San Francisco, CA, May – Aug 2018

- Built a lightweight proxy in **Go** to load balance **10,000+** requests/s, perform periodic health checks, and gracefully shutdown and restart on cluster failure and recovery, reducing failed requests by **40%**
- Developed a CLI to simplify local development setup by running multi-service applications in **Docker Compose**, allowing engineers to interact with individual services through a central CLI; fully adopted by the **entire engineering team**
- Created an open-source tool to automatically validate new **Kubernetes** services in the CI pipeline against customizable rules

**Shopify** Software Developer Intern Waterloo, ON, Sep – Dec 2017

- Implemented a volume pricing option for new price lists in the Wholesale Rails app used by **5,300+** enterprise customers
- Built a new product and search page using **Swift** and **GraphQL** for the Mobile Store iOS app based on UX research
- Analyzed petabyte scale datasets using **Hive** & **Presto** to compile a report on how user demographics affect app usage

**Meddo** Full-Stack Developer Intern Waterloo, ON, Jan – Apr 2017

- Developed and launched a new dashboard and search page using **React** and **Node** for an early-stage productivity platform
- Built a data ingestion tool to fetch, transform, and sync over **4,000** Jira issues into the platform
- Profiled and optimized Neo4j graph database queries to reduce API response times by up to **90%**

**Vena Solutions** Software Developer Intern Toronto, ON, May – Aug 2016

- Shipped full-stack features using **Backbone** and **Dropwizard** for highly requested functionality used by **500+** companies
- Refactored OLAP APIs to enable shared dimensions between multidimensional data models in **MySQL**, reducing storage size

## SKILLS

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Languages	Java · JavaScript · Python · Go · Ruby · C · C++ · PHP · HTML · CSS
Full-Stack	React · Backbone · jQuery · Node · Flask · Rails · MySQL · PostgreSQL · MongoDB · Android
Infrastructure	Docker · Kubernetes · Terraform · Bazel · Jenkins · ElasticSearch · AWS · GCP

## PROJECTS

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Wish Pegasus	A social platform for company engagement & collaboration. Won first place at Wish's company hackathon.
Star Stream	An Android shoot 'em up game featuring unique enemies and upgradeable ships. <a href="http://www.bit.ly/star-stream">www.bit.ly/star-stream</a>

## EDUCATION

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University of Waterloo	Bachelor of Software Engineering	Sep 2015 – May 2020 (expected)
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