

# Charlie Zhang

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## Work Experience

### Wish

May 2018 – Aug 2018

Infrastructure Engineering Intern – Go, Python

San Francisco, CA

- Developed a CLI tool to **build, manage, and run containerized Wish services** locally, eliminating the need to manually set up developer environments and configurations
- Built a tool that **validates Kubernetes files** using custom rules defined in Jsonnet and integrated it into the Jenkins pipeline to automatically reject invalid builds
- Created a web app to monitor Kubernetes CronJobs and display status info and job run history
- Built an **HTTP proxy with graceful restart** to perform health checks and load balance **5000 req/s**

### Shopify

Sep 2017 – Dec 2017

Software Developer Intern – Ruby, Swift

Waterloo, ON

- Architected Ruby services **used by 2000+ merchants** on Shopify's Wholesale channel
- Refactored price list models and controllers, reducing tech debt and improving code consistency
- Designed and built a **search bar and search page** for products in the Mobile Store iOS app
- Revamped the iOS product page with a new image gallery and product variant picker
- Published a **report on app usage & demographics** by analyzing user metrics with Hive and Presto

### Teal Software

Jan 2017 – Apr 2017

Full-Stack Developer Intern – JavaScript

Kitchener, ON

- Launched major product features using React + Node, including Dashboard page, Employee Directory page, new user onboarding experience, and 30 day free trials
- Built a **data ingestion tool** to fetch, transform, and sync Jira issues with project goals in the app
- Profiled and optimized Neo4j Cypher queries to **reduce graph API response times by 90%**
- Created a unit testing suite using Mocha + Chai and integrated it into the CI workflow

### Vena Solutions

May 2016 – Aug 2016

Software Developer Intern – Java, JavaScript

Toronto, ON

- Developed new API endpoints and Backbone views for numerous features on the Vena platform
- Refactored the OLAP API to allow for dimensions to be shared between multidimensional data models in MySQL, **decreasing data store sizes and ETL processing times**
- Worked with the CTO and head of HR to design, build, and **launch a new careers website**

### Mikutech

Oct 2013 – Aug 2014

Programmer Intern – PHP

London, ON

- Made a web app to parse server logs from a Redis database and **generate detailed bug reports**
- Created a script to send daily emails about sprint progress using data from the FogBugz API
- Worked with a client to customize their medical training web platform using HTML + CSS

## Projects

**My Ordinary Life** – React, Node, Express, MySQL, AWS EC2

www.myordinary.life

An online diary that gives you an entry every day to fill out, creating a timeline of your entries

**Rainy Life** – JavaScript, React, Cloudflare, AWS S3

www.rainy.life

A rain simulator with custom backgrounds, multi-sound controls, autosave, and shareable URLs

**Star Stream** – Java, libGDX, Gradle

bit.ly/star-stream

An Android shoot 'em up game where you control a customizable spaceship to shoot down waves of enemies over multiple levels using unique bullet patterns and power-ups

## Education

University of Waterloo

B. Sc. Software Engineering

Sep 2015 – May 2020

National University of Singapore

Exchange Student

Jan 2018 – May 2018

## Languages

Java

JavaScript / ES6

Go

Python

Ruby

C / C++

Swift

PHP

## Full-Stack

React

jQuery

Node

Express

Rails

MySQL

MongoDB

Neo4j

## Infrastructure

Docker

Kubernetes

Vagrant

Jenkins

AWS + GCP

## Awards

**Wish Hack 2018**

First Place

**WearHacks 2017**

Best Hack – People's Choice

**Canadian Computing Competition**

Top 10% of Participants