### **CAREER SUMMARY**

• Experienced in Java and Python for school and personal projects; experienced in TypeScript for professional work.

#### **EDUCATION**

# University of California, Santa Cruz

Sept 2015 - June 2019

# Bachelor of Science, Computer Science

Expected Date of Completion: Early June 2019

- **GPA**: 3.78 / 4.0
- Relevant Coursework: Software Engineering, Algorithm Analysis and Abstract Data Types, Distributed Systems, Machine Learning, Web Applications, Operating Systems, Database Systems, Data Structures, Computer Architecture, Computational Models, Discrete Math, Data Visualization, Computer Security

#### **WORK EXPERIENCE**

UC Santa Cruz Genomics Institute – Santa Cruz, CA, <a href="https://ucscgenomics.soe.ucsc.edu/">https://ucscgenomics.soe.ucsc.edu/</a>

Sept 2018 - June 2019

Undergraduate Research Assistant (Computational Genomics Platform)

- Contributed towards the full-stack web development of Dockstore, an open-source bioinformatics platform built with Angular 2 for sharing Docker-based tools and workflows.
- Improved the backend performance by optimizing the number of PostgreSQL calls from one-by-one to a bulk transaction.
- Reduced overhead of a component for visualizing bioinformatics workflows by caching different visualization versions with Akita state management.

San Mateo County Transit District – San Carlos, CA, <a href="http://www.samtrans.com/">http://www.samtrans.com/</a>

Jun 2018 - Aug 2018

Information Technology Intern

- Provided functional and technical support for the company's Oracle Database 10g and PeopleSoft system.
- Designed concise step-by-step process documentation for the company's Business Process Reengineering Phase.

#### **PROJECTS**

# **Accolade Modular Data Pipeline (Senior Capstone Project)**

Jan 2019 - June 2019

- A senior capstone project to create a reusable end-to-end data pipeline for industrial machine learning.
- Collaborated in a team of six students with the Accolade Data Science team.
- Developed Apache Spark Python (PySpark) scripts to extract, transform, and load raw datasets into optimal representations for machine learning models.

### Share Yourself Artists (Android/iOS)

**Sept 2018 – Dec 2018** 

- Cross-platform mobile application built with Flutter and designed for artists to share their work with a global network of journalists and art fans.
- Implemented artist and business user login/sign up functionalities with support for Google and Facebook authentication.
- Collaborated with backend developers to maintain existing Firebase database, which stores user information, art work, and business model transactions.

### **Facebook Messenger Movie Recommendation Bot**

Aug 2018 - Sept 2018

- Facebook Messenger Bot powered by Node.js that dynamically interacts with users to offer movie recommendations.
- Utilized Google Cloud Dialogflow API for natural language processing of user inputs.
- Designed a webhook with Express and hosted on Heroku to handle all REST calls coming to/from Facebook, Dialogflow, and The Movie Database APIs.

#### **Fault Tolerant & Scalable Distributed System**

Jan 2018 - Mar 2018

- An always-available and partition-tolerant (AP) key-value store system simulated with Docker containers.
- Constructed a REST API with Flask to insert and replicate key-value entries across a multi-node asynchronous network.
- Guaranteed eventual consistency of stale data via background multithreading, which sends broadcast signals to all reachable nodes every half-second.

### **LANGUAGES**

• Java (Proficient), Python (Proficient), JavaScript ES6, TypeScript, SQL, Dart, HTML, CSS & Sass, C

### **FRAMEWORKS**

Node.js, Angular 2, Apache Spark, Flutter, React, Vue.js, D3.js, Flask, Mockito

### **TOOLS**

• Git, Docker, Firebase, PostgreSQL, CI/CD, Atlassian JIRA, Apache Maven, Heroku, Oracle Database 10g