

Gabriel Alzate

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EDUCATION

Pomona College, Claremont, CA

Bachelor's in Computer Science, minor in Mathematics; GPA: 3.92 Expected May 2021

Relevant coursework: Algorithms (IP), Machine Learning (IP), Combinatorics (IP), Data Structures, Computer Systems, Linear Algebra, Discrete Mathematics, Intro to Data Science

Programming Languages: Proficient in Java, Python, C, C++; familiar with Dart, HTML, CSS, Javascript

EXPERIENCE

Head Computer Science Teaching Assistant; Claremont, CA

Feb 2019 - Present

- Collaborate with a team of experienced students to tutor 40 students individually and in small groups for Data Structures and Advanced Programming
- Conduct 2 weekly mentoring sessions to guide students through weekly assignments and address conceptual questions discussed in lecture
- Meticulously grade 6-8 assignments per week, paying close attention to (**Java**) code correctness, design, and reliability; and optimizing code when necessary

Software Engineering Intern, Kalibrr, Inc.; Manila, Philippines

Jun 2019 - Aug 2019

- Conducted intensive research on the benefits of using HTTP/2.0-based **gRPC**'s vs. REST API's for Kalibrr, a Southeast Asian online job platform
- Engineered HTTP/2.0-compliant gRPC microservices in **Python** for Kalibrr's **PostgreSQL** database which halved API response deserialization time and reduced payload size by 60%
- Created 3 edge and service proxy servers using **Docker** and **Envoy** to maintain HTTP/1.x backward compatibility with Kalibrr's 650 company clients
- Taught myself **Nginx** and **Golang** to create and optimize these proxy servers which eliminated concurrency errors, reducing response time by 50%

Software Development Intern, Middle Tree (MT); Claremont, CA

Jan 2019 - May 2019

- Developed **Bash** and Zoho scripts to manage the CRM of over 150 students of Middle Tree, a nonprofit education center that provides affordable tutoring
- Created a sign-in/out page that updates MT's database for its daily 10-20 users with a median latency of 32ms using **jQuery** and **Google Sheets API**
- Optimized the webpage style for MT's front desk tablets and deployed the site on Github Pages

PROJECTS

Wine Variety Text Classification

Oct 2019

- Implemented a multiclass decision tree classifier in **Java** that, given a piece of text, detects wine variety
- Increased accuracy from 50% to 70% by instead using OVA and AVA decision tree classifiers

Job Registration App

Jun 2019 - Aug 2019

- Built an internal mobile app in **Dart** using the **Flutter** framework that performs CRUD operations on Kalibrr's company listings

PATH (5C Hackathon)

Nov 2018

- Created 'PATH', a **Flask** web app that suggests the best travel option in Claremont based on transport, price, time, and distance; incorporated Google Direction Services and Uber API

CO-CURRICULAR ACTIVITIES

Doubles Badminton Player, 5C Intramural Badminton Team, Pomona College

Sept 2018 - Present

Board Member, Violinist, Symphonic Student Association, UC San Diego

Sept 2017 - June 2018