Gabriel Alzate

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EDUCATION & SKILLS

Pomona College, Claremont, CA   Expected May 2021

Major: Computer Science | Minor: Mathematics   GPA: 3.92

Languages	Java, Python, C, C++, Bash, HTML, CSS, Javascript, Dart
Tools	Docker, gRPC, Git, UNIX, Vim, LaTeX, Hadoop, Flutter
Relevant coursework	Software Development (IP), Databases (IP), Operations Research (IP), Algorithms, Data Structures, Machine Learning, Computer Systems

EXPERIENCE

Kalibrr, Inc.   Jun 2019 – Aug 2019

Software Engineering Intern   *Manila, Philippines*

· 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 gRPC microservices in **Python** for Kalibrr's **PostgreSQL** database which reduced API response deserialization time and payload size by 50%
· Added HTTP/1.x backward compatibility by launching 3 **Docker**ized edge and service proxy servers
· Taught myself **Nginx** and **Envoy** to optimize these proxy servers by eliminating concurrency errors and reducing response time by 40%
· Deployed an internal **Flutter**-based mobile app in **Dart** that communicates with Kalibrr's first HTTP2-compliant, HTTP1 backward-compatible microservices

Pomona College Computer Science Department   Jan 2019 – Present

Head Teaching Assistant (Data Structures & Advanced Programming)   *Claremont, CA*

· Collaborate with and lead a team of TA's to tutor 35+ students individually and in small groups
· Conduct 2 weekly mentor sessions to guide students through assignments and address conceptual questions discussed in lecture
· Optimize **Java** code for and meticulously grade 5-6 students' assignments every week
· Communicate frequently with and report back to professors about students' performance as head TA

PROJECTS

College Course Review Sentiment Analysis   Nov 2019 – Dec 2019

· Devise a web-scraping application to collect and preprocess the text of 7000+ course reviews
· Develop a model to predict course quality based on the sentiment of a course review using NLTK-VADER, a **Python** sentiment analysis tool

Wine Variety Text Classification   Oct 2019

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

PATH – Travel Budget App (5C Hackathon)   Nov 2018

· Created a **Flask** web app that suggests travel options in Claremont based on transportation, price, time, and distance; used **jQuery** and the **UIKit** framework to build a responsive website

EXTRACURRICULAR ACTIVITIES

· Taught introductory CS classes as Outreach Chair of the Computer Science and Engineering Society
· Co-founded UCSD's Symphonic Student Association, an organization committed to building a community of students with a shared interest in classical music