ALYSSA GAO

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EDUCATION

CORNELL UNIVERSITY
B.S. COMPUTER SCIENCE, AUGUST 2019 – MAY 2022
- GPA: 3.96 (Engineering Dean's List Fall 2019)
- Relevant Courses: Functional Programming, Linear Algebra, Discrete Mathematics, C++ Programming, Data Structures, Differential Equations, Computer Architecture

UNIVERSITY OF CALIFORNIA LOS ANGELES
COMPUTER SCIENCE FIRST YEAR, SEPTEMBER 2018 – JUNE 2019
- GPA: 3.96
- Awards: UCLA Achievement Scholarship (top 10%), Engineering General Scholarship: Boeing, UPE member

WORK EXPERIENCE

SOFTWARE ENGINEERING INTERN – AMAZON AWS, NEW YORK CITY, NY   SUMMER 2020
JAVASCRIPT, TYPESCRIPT, REACT, REDUX
- Refactored an internal AWS tool by enabling real-time collaborative authoring so that solution architects can jointly develop scenarios that map AWS resources to a customer's needs
- Constructed a scalable peer-to-peer communication system that broadcasts real-time changes of solution documents with AWS IoT Core message broker
- Designed and implemented an AWS Lambda function that retrieves state data from Amazon S3 to synchronize states of solution documents across multiple devices
- Wrote unit tests to satisfy code coverage requirements using Jest

SOFTWARE ENGINEERING INTERN – HEAL, LOS ANGELES, CA   SUMMER 2019
PYTHON, POSTGRESQL
- Established a new API endpoint for POST requests using a Lambda function that alleviated main API traffic by 90%
- Implemented a data ingestion service with another Lambda function that used batched insertion to increase database efficiency by 50 times
- Recorded last known location of each Heal doctor by sending messages obtained by querying an SQLAlchemy table of 500 entries through an AWS SQS queue

TEACHING ASSISTANT/CONSULTANT – CORNELL UNIVERSITY
CS 3110 Data Structures and Functional Programming   September 2020 – Present
CS 2800 Discrete Mathematics   February 2020 – May 2020

PROJECTS

CORNELL HEALTHTECH – UNITY   AUG 2018 – JAN 2019
- Collaborated with Barefoot College to implement a game to promote menstrual health awareness in India
- Researched audio management, and character/object interaction in Unity

SKILLS

Programming languages: Proficient in C++, Python, OCaml; Familiar with Java, TypeScript/JavaScript
Development tools: Amazon S3, AWS IoT Core, Lambda, SQS