Bella Le

Computer science student at UC San Diego

Tracy, California

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Education

University of California, San Diego

La Jolla, California

Computer Science, B.S. • Minor: Cognitive Science • GPA: 3.78

2016 - Expected March 2020

Relevant coursework: Design & Analysis of Algorithms, Principles of Operating Systems, Programming Languages, Database Systems Principles, Computer Security, Computer Architecture, Compiler Construction, Recommender Systems & Web Mining, Data Science

Experience

Software Development Engineer Intern

New York, New York

Amazon.com, Amazon Attribution Engineering

June 2019 - September 2019

- Developed and integrated portions of the Amazon Attribution website, refactoring from legacy JavaServer Pages (JSP) code to React.js and devised unit and snapshot tests with Jest and Enzyme to test the robustness of React.js components and functions.
- Resolved tickets for new features and bug reports and created a mechanism to automatically generate tickets in case of failures.
- Implemented bulk upload operations for Facebook advertising, a feature demanded by over 70% of Attribution users, utilizing AWS Step Functions and React.js and modifying internal services for file validation and ingestion.

Software Development Engineer Intern

Seattle, Washington

Amazon.com, AAA

June 2018 - September 2018

- Designed and implemented a project that facilitated the migration of internal data utilizing AWS services such as AWS CloudFormation, AWS Lambda, Amazon Simple Cloud Storage Service, and Amazon DynamoDB to an internal data lake with near real-time updates.
- Refactored internal data to improve processing, to secure access with client-side encryption, and to filter confidential information.
- Devised unit tests with the Mockito mocking framework as well as integration tests to ensure project integrity and functionality.
- Communicated with external teams to ensure that specific features are created and needs are met for use cases.
- Improved data update latency from 24 hours to a maximum of 10 minutes, and reduced data size by 1,000x.

Computer Science & Engineering Tutor

La Jolla, California

UCSD Computer Science & Engineering

January 2019 - June 2019

- Tutored CSE 101: Design & Analysis of Algorithms for the Winter 2019 and Spring 2019 quarters.
- Managed the logistics of a 360-student course via grading coursework and preparing lecture slides to express visualizations of algorithms.
- Held office hours twice per week and 1-on-1 sessions 2-4 times per week to communicate ideas on applications of algorithms to students, helping to resolve issues in their coursework and assisting in preparations for exams and cultivate understanding.

Volunteer Undergraduate Research Assistant

La Jolla, California

Paesani Research Group

October 2017 - December 2017

- Optimized scientific computing programs, utilizing vectorization in C++ to contain, reorganize, and process data efficiently in calculations.
- Devised and modified algorithms concerning the large-scale computation of systems of molecules and their interactions.
- Programmed the properties of new atoms and executed test cases utilizing bash scripts to ensure the correctness of algorithms.

Projects

Blueprint

Python

Web Application

Winter 2019

- Utilized AWS Lambda and Amazon S3 to facilitate generation of HTML webpage templates from images with Tensorflow and OpenCV.
- Implemented a REST API using Amazon API Gateway allowing for database integration and authorization with Amazon DynamoDB as well as interactions between the frontend and serverless backend.

Skills

Programming Java, C++, JavaScript, Python, C, SQL, HTML/CSS, JavaServer Pages (JSP)

Tools & Frameworks React.js, Amazon Web Services, JUnit, Mockito, Jest, Enzyme