
SUMMARY

A team player and active learner who is keen to contribute to collaborative projects that use technology as an avenue to improve users' experiences.

EDUCATION**University of Southern California***Bachelor of Science in Applied & Computational Mathematics**Minor in Computer Science*

Current Coursework: Theory of Numbers (MATH430), Applied Combinatorics (MATH432), Intro to Artificial Intelligence (CSCI360), Programming in Python (ITP115), Applied Business Statistics (BUAD310), applying to study MS Financial Engineering at USC

Los Angeles, CA

Aug 2017 – May 2021

Current GPA: 3.37

COMPLETED COURSEWORK

- Probability Theory, Mathematical Statistics, Linear Algebra
- Data Structures & Object-Oriented Programming
- Algorithms & Theory of Computing
- Principles of Software Development
- Intro to Computer Systems

TECHNICAL SKILLS

- Languages (proficient): C++/C, Java, Python, MySQL, English, Hindi
- IDEs: Visual Studio, Eclipse, Pycharm
- Tools: Git, Microsoft Office, GDB, Google Cloud Platform
- OS: Windows, Linux
- Waterfall & Agile/Scrum Development

PROJECTS**Class Projects***C/C++ Developer*

Mar 2019 – Nov 2019

- Utilized segregated free lists to construct a simple implementation of malloc, free and realloc, with an average of 90% space utilization and throughput when applying test cases in comparison to the C standard library implementation of the functions.
- Constructed a simple cache simulator in C for a k-way set associative cache with FIFO and LRU replacement policies.
- Implemented A* search algorithm to generate an economical solution in C++ to the popular sliding tile puzzle, while comparing the effectiveness of various heuristics to efficiently find a solution.

InternNet – An Internship-based Social Media Platform*Java Developer*

Aug 2019 – Nov 2019

- Worked in a team of six to create a locally hosted web platform for users to securely log in and update and store information on their internship application as well as utilized multi-threading techniques to view the statuses of friends on the platform.
- Oversaw all access and change of data between backend interfaces and GCP MySQL database by creating backend Java class files and packages for various helper classes and utilizing the JDBC Java API.
- Managed backend Java servlets to parse data from forms and used AJAX to synchronously update friend requests, update page information, and display user information online on the front end.

Amazon Simulation*C++ Developer*

Feb 2019 – May 2019

- Created an offline simulation of the Amazon website and its functionalities.
- Parsed users, products and reviews to extract relevant information and stored them in a database for quick lookup. Performed hashing to allow users to securely log into their accounts and update carts, complete purchases and add reviews.
- Performed the union and intersection of datasets to provide precise search results. Implemented Dijkstra and merge sort algorithms to make product suggestions for each user, based on the ratings they gave to other products and by comparing their similarity to other users in the database.

PROFESSIONAL EXPERIENCE**USC Dornsife School of Letters, Arts and Sciences/Viterbi School of Engineering***Course Producer/Grader*

Aug 2019 – Present

- Conducting on-campus office hours, leading discussions, grading assignments/exams and collaborating with professors in teaching Discrete Methods in Computer Science (CS170) and Elementary Probability & Statistics (MATH208)

Valency International Trading Pte Ltd*Business Analyst Intern*

May 2018 – Aug 2018

- Presented business reports to Valency's chairman, which focused on investigating factors that could improve daily operations in the raw cashew trade in Cote d'Ivoire, as well as operations surrounding the cashew processing factory in Nigeria
- Proposed recommendations to improve Valency's operational efficiency and marketing of new products, through visiting wholesale markets in Dubai and cashew factories across Vietnam

Singapore Armed Forces*3rd Sergeant, Section Commander in 5th Battalion Singapore Infantry Regiment*

Dec 2014 – Dec 2016

- Responsible for the lives of seven men under my command in military exercises both within and outside of Singapore.