

Software Engineer Profile

Innovative and results-driven professional currently pursuing a master's degree in Computer Science and Engineering coupled with capacity for implementing theoretical insights acquired from BS in Computer Science. Tech-savvy individual with hands-on experience within all facets of software engineering, database management, and full-stack development. Capable of managing and leading various software development projects from inception to completion within defined scope, quality, and timeline. Skilled in troubleshooting complex technical issues through sound and creative engineering. Ambitious to start a challenging career within a fast-moving corporation offering genuine career progression opportunities.

Education

Master of Science in Computer Science and Engineering
University of California Santa Cruz, 2022 – Present

Bachelor of Science in Computer Science, Minor in Statistics –with Highest Honors
University of California Santa Cruz, Graduate 2022

GPA: 3.97 | *University Honors: Summa Cum Laude*

Coursework: Software Engineering, Distributed Systems, Machine Learning, Databases, Artificial-Intelligence, Data Structures Algorithms, Algorithms Analysis, Operating Systems, Computer Architecture, Functional Programming, Applied Bayesian Stats

Technical Proficiencies

Programming Languages: Python, JavaScript, SQL, Java, C, C++, MATLAB, R, Haskell

Technologies & Frameworks: React/React-Native.js, Node.js, Express.js, Flask, Firebase, PostgreSQL, Docker, Flask, TensorFlow, NumPy, Pandas, Scikit-learn, REST APIs, jQuery, GitHub, Unix

Career Experience

Jack Baskin School of Engineering, Santa Cruz, CA
Course Reader/Tutor

2021 – Present

Course Tutor for CSE101: Data Structures and Algorithms (C/C++)

Teach core data structure concepts and debugging techniques to strengthen students' programming/problem-solving skills. Scheduled and hosted virtual zoom office hours two days a week. Assess quizzes and programming assignments for over 400 students.

Course Reader for CSE20: Beginning programming in Python and CSE103: Computational Models (upper division)

Grade four assignments every week for class sizes ranging from 100 to 300 students, while working 16 hours per week.

Selected Contributions:

- Improved the grades of around 50 students by providing students with positive and constructive feedback.
- Encouraged students to stay involved and acquire confidence throughout the course.
- Maintained discipline in accordance with the rules and disciplinary systems of the school.
- Created and nurtured a learning atmosphere to meet students' varying needs and interests.

Key Projects

Wave-Styled (JavaScript, Python, SQL) | App Developer/SCRUM Master

- Developed an IOS app that recommends outfits to users based on their personalized wardrobe.
- Rendered multiple app components using React-Native to design the user interface of an app.
- Improved SQL database structure to support various query types.
- Utilized Python and Node.js for backend testing of API endpoints.
- **Technologies:** *React-Native, Expo, TensorFlow Keras, Fast API, Pandas, Sequelize, Express.js, Cors, Axios, PostgreSQL.*

Bitcoin Price Prediction (Python)

- Trained and designed an RNN model to forecast bitcoin prices/trends from 2014 to 2021.
- Utilized Pandas and MinMaxScaler to clean and scale BTC price data from Yahoo Finance.
- Employed several GRU layers and adjusted the model's timesteps to achieve a mean-squared loss of 0.0014.

Key-value store (Python)

- Created a distributed, sharded, and fault-tolerant key-value store that spans many Docker containers.
- **Technologies:** *Flask REST API, Docker*

Priority Scheduler (C)

- Developed an operating system (Pint-OS) that prioritizes thread scheduling.
- Implemented multilevel feedback queues, multi-threading concepts, and preemptive priority scheduling.

Additional Experience

Financial Director, Indian Student Association

Cut the club budget by 20% by negotiating vendor pricing and fees while overseeing a team of three financial interns. Formulated budgets for large-scale events involving 300–700 people and completed over 30 procurement orders.

Calculus Tutor, San Mateo High School

Tutored Calculus AB students in high school, and graded assignments, and examinations in lieu of standard coursework.

Health Information Management Volunteer, San Mateo Medical Center

Digitized, categorized, and maintained a database of 3,000 current patients' records for medical personnel to access.

Assistant Tennis Coach, Whitlinger Sarsfield Tennis

Provided middle-school student athletes tennis instruction and provided actionable feedback on mechanics and skills

Summer Volunteer, San Carlos Aviation Museum

Provided supervision, led activities, and educated 500 youth on principles and activities related to aviation and science

Awards

Jefferson Award: Awarded with Local Nobel Prize by remarkable local community volunteer impact – 2019

Presidential Gold Award: Honored for contribution that positively impacts the community and inspires others to action – 2018