

Amir Mairaj

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Education

Bachelor of Science in Computer Science w/ Specialization in Information Systems

University of California Irvine - GPA: 3.716, Dean's Honor List

Expected Graduation: December 2023

Experience

Backend Software Engineer Intern, Odyssey

Feb 2023 - Jun 2023

- Developed a full-stack **React** web application using **AWS Amplify**, including complete sign-in/out authentication functionality.
- Utilized **OpenAI API** to generate JSON strings that could be efficiently stored in a **NoSQL** database. Managed data (JSON) using **AWS DynamoDB**, and designed efficient schemas for user data storage.
- Collaborated in **agile** methodologies, meeting milestones on time. Utilized **CI/CD** for rapid iterations.

Office of Information Technology Consultant, UC Irvine

Dec 2021 - Present

- Reduced escalations to higher-level technicians by over **75%** through efficient handling of complex user requests. Utilized **ServiceNow** for support tracking and analysis.
- Provided ad-hoc training for effective navigation of OIT-supported applications and tools for UC Irvine affiliates.
- Contributed to developing and enhancing **AI** chatbot for improved self-help systems.

Co-Lead, UC Irvine Google Developer Student Club

Aug 2022 - Aug 2023

- Coordinated team efforts, planned activities for large events, and set clear goals for the club.

Projects

Web Scraper

- Designed a web scraper to scrape UC Irvines' ICS subdomains, written in **Python**.
- Implemented an adaptable inverted index using hash maps for **50%** more rapid search time.
- Employed search techniques such as search term stemming and calculating TF-IDF score and SimHash to optimize search results.
- Created WebGUI using **Flask**, **HTML**, and **CSS** to interact with search engine.

Personal Website Portfolio

- Developed personal website and portfolio using **HTML**, **CSS**, and **Bootstrap** hosted on **GitHub Pages**.

Slumber

- Co-developed an iOS wellness application using **Swift**, integrating Apple Watch and **HealthKit** Framework. Implemented biometric data collection for real-time monitoring of vital health metrics.
- Utilized machine learning models (**Core ML**) to deliver personalized recommendations for improved sleep and exercise habits, and stored user data in a database local to use the user's device (**Core Data**).

Machine Learning Classification Analysis

- Tuned Hyper-parameters for machine learning classifiers (KNN, Logistic Regression, Neural Network, and Random Forest) using **sci-kit-learn** for enhanced performance on the Fashion-MNIST dataset.
- Co-authored research paper on classification methods on the Fashion-MNIST dataset.

Skills

Languages: Python, C++, Java, Swift, MySQL, SQLite

Tools: Windows, Linux, MacOS, AWS (DynamoDB, Lambda, Amplify, EC2, API Gateway), Git, GitHub, VSCode, Eclipse, PyCharm, CLion, Jupyter Notebook, ML Libraries (pandas, NumPy, matplotlib, seaborn, sci-kit-learn)

