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EDUCATION

Bachelor of Computer Science   **Irvine, CA**
University of California, Irvine | GPA: 3.97   September 2023 - June 2025

Associate of Science   **Irvine, CA**
Irvine Valley College, Irvine | GPA: 4.00   September 2020 - June 2023

SKILLS

● Python   ● Java   ● Javascript   ● C/C++   ● AWS   ● SQL   ● PostgreSQL   ● SQLite

● React   ● React Native   ● Firebase   ● Flask   ● Selenium   ● Git   ● HTML/CSS

EXPERIENCES

Backend Software Engineer Intern   **Irvine, CA**
Mondego Lab, University of California, Irvine   June 2024 - August 2024
● Utilized **LLMs** and **Retrieval-Augmented Generation** to develop specialized AI Immigration and Tax assistants.
● Crawled more than **30,000** IRS website pages and **6,000** USCIS website pages and stored their data.
● Worked on the **backend** to index documents, generate **embeddings**, and store them in the **vector database** using **Faiss**.
● Developed algorithms to process thousands of documents by summarizing and organizing them for AI assistants.
● Integrated third-party APIs, including **OpenAI's GPT-3.5 Turbo**, to enhance the functionality of AI assistants.

Website Developer   **Irvine, CA**
Tournex crypto project   June 2022 - August 2022
● Developed an interactive and responsive website using **React JS** and **Javascript**
● Implemented a real-time cryptocurrency price tracker by integrating different **APIs** which resulted in a remarkable 60%
increase in website traffic in the first month
● Collaborated in the **UX/UI** design process to create interactive and visually appealing user interfaces
● Conducted code reviews and provided constructive feedback to team members to maintain code quality and consistency.

PROJECTS

Cryptofolio Web Application
https://main.d2pujeh9fcxm5.amplifyapp.com/
● Developed a full-stack cryptocurrency web application with **React** for the frontend and **AWS Amplify** for the backend.
● Implemented secure sign-up and login functionality using **AWS Authorization** to store user credentials in the database.
● Integrated third-party **APIs** (Coingecko) to fetch and display real-time cryptocurrency data.
● Developed a feature allowing users to create and manage personalized watchlists, storing these preferences in
DynamoDB for quick access and updates.
● Built a **responsive**, user-friendly interface using **React**, ensuring compatibility for desktop and mobile devices.

Search Engine Web Application
● Built a **Python**-based search engine from scratch, capable of processing **hundreds of thousands** of documents or web
pages with query response times under 300ms.

- Created a web application interface for the search engine using **Flask**.
- Integrated the **OpenAI API** to summarize page content and present concise summaries in the search results.
- Implemented **PageRank** and **relevance scoring** algorithms to dynamically rank search results, considering factors like keyword frequency, cosine similarity, and keyword placement within web pages.

Web Crawler
- Designed and developed a web crawler using **Python** and libraries like **BeautifulSoup** to systematically browse the web.
- Designed crawling algorithms to discover and fetch web pages while adhering to politeness policies.
- Implemented **Simhash** algorithm for exact and near text duplication detection, ensuring the avoidance of duplicate content
- More than **12,000 URLs** within the **UCI** website subdomain were crawled, and their content was parsed for indexing.
- Collaborated with fellow students using **Git** and **GitHub** to divide tasks and streamline development efforts.

Food Delivery App
- Developed a full-stack **React Native** application to help users find nearby restaurants using **Google Places API** and **Yelp API** and place delivery orders.
- Implemented functionality to view restaurant details, add items to a cart, and place orders directly through the app.
- Integrated **Firebase** database to save orders and used **Firebase Auth** for secure user sign-in
- Built a user-friendly and intuitive UI compatible with **Expo** for **iOS, Android, and Web platforms**.

Hotel Reservation Application
- Developed a complete hotel reservation application using **Python**, focusing on providing users with a seamless and secure booking experience
- Integrated a relational **SQL** database (**SQLite**) to store user information, room details, and reservation data.
- Created a user-friendly interface for browsing available rooms, selecting check-in and check-out dates, and managing reservations using **Tkinter**

Spotify Playlist Downloader
- Developed a **Python** script to automatically download Spotify playlist songs from Youtbue
- Integrated Spotify **API** to fetch playlist details and song metadata.
- Utilized **Selenium** WebDriver to automate the process of searching and retrieving song URLs from YouTube.
- Employed **Pytube** for downloading songs from YouTube.

CAMPUS INVOLVEMENT

IVC Computer Science Club   **Irvine, CA**
Webmaster   September 2022 - June 2023
- Maintained and updated the club's website and managed the online platforms and tools used by the club.
- Implemented an intuitive and user-friendly feature that allowed club members to login to the website and upload their project for all website viewers, resulting in increased traffic and participation by members.

UCI Artificial Intelligence Club   **Irvine, CA**
Member   September 2023 - present
- Attended events and project meetings held by the club to work on real-world projects that have helped me apply theoretical knowledge to practical problems