Alami Afilal

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EDUCATION

San Francisco Bay University

Master of Science in Computer Science | 3.91/4.0

California State University, East Bay

Master of Science in Construction Management

San Jose State University

Bachelor of Science in Civil Engineering

Fremont, CA

Sep 2022 - Apr 2024

Hayward, CA

Aug 2021 - Aug 2022

San Jose, CA

Aug 2017 - Dec 2020

TECHNICAL SKILLS

Languages: Python, JavaScript, HTML/CSS, SQL

Frameworks and Librairies: React.js, Langchain, Flask, PyTorch, NumPy, Pandas

Tools: Git, Terminal, Docker

Projects

Full Stack University Chat Application | React, Flask, Langchain, OpenAI, Cohere, ChromaDB | Competition Winner

- Led the team in the development of a responsive and interactive chat assistant using **React** for prospective students seeking university-related information.
- Implemented a voice interaction feature with real-time audio input and output processing using OpenAI TTS for Text-To-Speech and Whisper for Speech-To-Text, enhancing accessibility and user engagement.
- Integrated Langchain with the OpenAI and Cohere APIs to augment the Language Model with RAG that dynamically sourced data from the university's knowledge base, showcasing an accuracy of more than 90% in retrieving the relevant context.
- Utilized **ChromaDB** as an Embedding Database for storing and accessing vector representations of university text data, significantly improving the precision of information retrieval.
- Utilized Flask to build a robust server-side API that can handle complex queries, enabling fast data retrieval and processing for the chat application.
- Won 1st place at the university-wide AI Competition judged by a panel from the university administration. Our Student Assistant Chat Application was praised for its natural language processing and ability to provide tailored and helpful information to prospective students.

$\mathbf{MiniTorch\ -\ Miniature\ PyTorch\ Framework}\ |\ \mathit{Python},\ \mathit{Numpy}$

- Designed a simplified version of the **PyTorch** library from the ground up to understand and demonstrate **deep learning** fundamentals.
- Designed and implemented a custom DataNode class using **NumPy** to simulate PyTorch's tensor functionality, allowing for intricate matrix operations and transformations essential for neural network computations.
- Integrated multiple optimization algorithms such as Adam Optimizer, Gradient Descent (GD), and Stochastic Gradient Descent (SGD), providing versatility in approaching various optimization problems in model training.
- Crafted a user-friendly API for the mini-framework that mirrors PyTorch's design, enabling users to build, train, and test neural networks with an accessible interface.

EXPERIENCE

Project Management Intern

Jun 2022 - Aug 2022

Dublin, CA

Lusardi Construction

- Assisted in the management of all sets of drawings, specifications, and logs for a \$80+ million project, ensuring accurate and up-to-date information.
- Efficiently prepared and distributed subcontract S7 documents to subcontractors, streamlining communication and collaboration.
- Leveraged Procore to create, update, and track submittals and RFIs, maintaining a well-organized project management system.
- Collaborated with the Project Manager to develop a comprehensive construction schedule, facilitating on-time project completion and resource optimization.

Shift Lead Nov 2018 - Present

Superior Gas and Carwash

San Leandro, CA

- Managed daily operations, including staff supervision, scheduling, and inventory, demonstrating strong leadership and organizational skills.
- Ensured the proper maintenance and operation of gas station equipment and systems, showcasing a keen eye for detail and problem-solving abilities.
- Played an integral role in recruitment, hiring, training, and employee development, highlighting effective communication and team collaboration skills.