Dev Masrani

www.masrani.tech • dsmasrani@gmail.com • (408) 600-5299 • www.linkedin.com/in/dev-masrani/

Education

B.S. in Computer Science, *Minor in Construction Management* *Est. Grad: June 2024*

California Polytechnic State University, San Luis Obispo CA

Honors: Winner of Cisco@Slohacks 2020

Relevant Coursework: CSC 202 – Data Structures in Python, CSC 203 – Object-Oriented Programming in Java, CPE 357 – Systems Programming in C, CSC 308/309 – Software Engineering I & 2, CSC 365 – Databases in MySQL

Professional Experience

Jr. Software Development Engineer *Jan 2023–Present*

Amazon, San Luis Obispo, CA

- Maintaining and Optimizing Machine-Learning Routes for Amazon delivery drivers globally alongside the Last-Mile Route Forecasting team.
- Leading a full feature release from design, implementation, documentation, onboarding clients, and on-call support for existing clients.
- Converted an existing backend product from schedule-based ML run to a event-based ML run, enabling real-time forecasting updates for route planners enabling fresh data predictions and saving $10k+ per month in costs.
- Collaborate with cross-functional teams, including data scientists and software engineers, to ensure each data source can add a trigger notification system utilizing SNS, SQS on S3 data writes.

Software Engineering Intern *June 2022–September 2022*

Viasat, Carlsbad, CA

- Collaborated with a team to develop a CI/CD DevOps-style system using Kubernetes, GitHub Actions, Artifactory, Nginx, Ansible, and ArgoCD.
- Utilized GitHub Actions to autonomously build docker containers upon git push and integration testing.
- Employed Nginx to effectively load balance the Kubernetes cluster allowing users to have uninterrupted service in the event of high load or node downtime.
- Managed the cluster through Ansible and Bash scripts to automatically spawn or remove Openstack VM's, and configure them for the cluster by monitoring traffic-based load and node health.

Software Engineer *Jan 2021–Jan 2022*

PolySat, San Luis Obispo, CA

- Collaborated with a 10-person software team to develop drivers and flight software for cube satellites commissioned for NASA, Lockheed Martin, Pepsi, etc.
- Developed custom fork of Flight Software from F' by JPL in C, C++, and Python.
- Integrated scheduling and watchdog protocols for in orbit satellite Xcube to ensure proper satellite heath; this allows Xcube to externally hard reboot In-case of error.

Project Experience

StudyGPT | Langchain, Pinecone, OpenAI, Python, React.js, Supabase, Vercel *June 2023*

- Leading a team of 2 to develop a study aid to allow users to seamlessly upload slides, textbooks, and notes (.pdf, .pptx, .docx) to chatGPT, effectively expanding its capabilities to store and recall information.
- Added support for chatGPT to auto-cite its sources, providing file references and page numbers for queries.
- Implemented a Windows and MacOS application utilizing langchain to seamlessly convert files to vectors and upload them to Pinecone for storage.
- Developed an API utilizing Pinecone and GPT-3.5, enabling seamless data querying with just a prompt.

Playlistifyer | Python, Flask, Heroku, Vercel *March 2021*

- Implemented AI Spotify playlist generator and analyser in python and flask with 100+ active users at launch
- Integrated Spotify OAuth and browser cookie cache's to privately store user data encrypted and locally
- Server supported 130 concurrent users and generated 750+ playlists on launch day
- http://playlistifyer.pythonanywhere.com

Skills

- **Technical Skills:** Java, Python, C, C#, Kotlin, Typescript, MySQL, HTML, ReactJS
- **Interests:** Hiking, Biking, Construction, Real Estate, Video Games, Dancing, Eagle Scout