Melanie Escobar Marulanda

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EDUCATION

University of Houston — Houston, TX
Bachelor of Science in Computer Science — *Aug. 2022 – Present*

- Relevant Coursework: Data Structures, Algorithms, Software Development Practices, Operating Systems, Databases, Data Science I
- Dean's List fall 2023

Alvin Community College — Pearland, TX
Associate of Arts in General Studies (high-school dual-degree) — *Aug. 2018 – May 2022*

- Graduated Summa Cum Laude, awarded the Presidential Scholar award in recognition of academic achievement, Dean's list for three years

PROJECTS

Spara AI – Capstone Project — Jan 2025 – May 2025
Python, FastAPI, React, TypeScript, Tailwind CSS, LangChain, OpenAI, Gemini, Supabase, Docker, Jest, Pytest, Jenkins

- Collaborated in a 7-member team to develop a full-stack AI chatbot for a real-world client, integrating OpenAI and Gemini via LangChain with seamless model switching through an admin UI
- Achieved 100% test coverage across frontend and backend; project integrated with Jenkins CI/CD for automated testing and deployment
- Engineered backend logic for product and context matching using OpenAI embeddings, enabling personalized video responses, chat scoring, and Gemini-powered summaries and titles
- Designed a React frontend using TypeScript and Tailwind, featuring chat messaging, video playback, smart chat titles, real-time typing indicators, and model selection tools

The Museum of Fine Arts, Houston - Full-Stack Management System — Aug 2024 – Nov 2024
React, Express.js, MySQL, Node.js

- Collaborated in a 5-member team to deploy a full-stack application for managing museum collections, exhibitions, events, artwork, gift shop inventory, and memberships with authentication, reporting, and database triggers
- Implemented full CRUD functionality for artworks, exhibitions, and events, including custom form validation, image uploads with preview support, and image hosting via Azure Blob Storage
- Developed a ticket sales reporting page with React and jsPDF for generating downloadable summaries

Shasta's Coogmunity Service - Full-Stack Volunteer Management System — Aug 2024 – Nov 2024
React, Node.js, Express, MongoDB, Mongoose, JWT

- Led a 4-member team to build a full-stack platform with admin and volunteer dashboards, including secure authentication and role-based access
- Implemented full CRUD functionality and event matching based on volunteer profile data such as availability, location, and skills
- Built a responsive React UI with dynamic forms, modals, and image uploads handled via Azure Blob Storage
- Integrated PDF and CSV reporting tools using pdfkit and json2csv

EXPERIENCE

Crew Member — August 2024 – Present
Chipotle — *Pearland, TX*

- Deliver exceptional customer service with professionalism and warmth, consistently receiving positive feedback from guests and managers
- Operate the front line by preparing and assembling orders accurately and efficiently, while upholding food safety protocols in a fast-paced environment

TECHNICAL SKILLS

Languages: C++, Python, SQL, JavaScript, HTML, CSS
Frameworks & Libraries: React, Node.js, Express, FastAPI, Mongoose, Tailwind CSS
Tools & Platforms: Git, Docker, Postman, VS Code, Supabase, MongoDB Atlas, Azure Blob, Vite