Luisangel Esparza

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EDUCATION

University of Houston   Houston, TX
Bachelor of Science, Computer Science   **Expected May 2026**
Minor, Software Engineering

Relevant Coursework: Software Design, Database Systems, Algorithms and Data Structures, and Operating Systems

WORK EXPERIENCE

Information Technology Intern   June 2024 – August 2024
Harris County Precinct 2 Houston, TX
- Designed and implemented a real-time tracking system that decreased disaster response times from 1+ hours to within 15 minutes, enhancing government leadership's ability to manage difficult situations efficiently.
- Developed and deployed vehicle tracking system for 10+ precinct vehicles, integrating city databases and servers, resulting in 99.9% accuracy in vehicle utilization and improvements in operational efficiency.
- Resolved 50+ hardware issues across 13 different sites, applying critical thinking to troubleshoot diverse technical problems and improve operational efficiency by 10%.

Coding Instructor   January 2025 – Present
Coder Kids Houston, TX
- Instruct 22 K-5 students per week on core and fundamental computer science topics while using applications such as ScratchJr, Code.org, and Typing.com to develop mini games and build confidence all while having fun.
- Manage weekly reports for parents, tracking students progress for transparency and understanding their development.

PROJECT EXPERIENCE

Master Mind | C#, NUnit, .NET MAUI, svn   August 2024 - September 2024
- Implemented test-driven development(TDD) with NUnit, creating 25 unit tests that reduced bug detection time and improved code coverage to 100% throughout the games development cycle.
- Designed and implemented a GUI that enhanced user experience through intuitive controls. Utilizing .NET MAUI to create a cross-platform application that runs on macOS and Windows.

Ship It! | ReactJS, Express, MySQL, aws, HTML, CSS, Git   August 2024 - November 2024
- Developed a responsive and dynamic multipage shipping service utilizing JavaScript and backend API, incorporating user authentication, roles, and session management to handle concurrent users and access privileges which makes for an easy user experience.
- Implemented database design principles and SQL queries to manage and manipulate data efficiently, ensuring data integrity while enforcing restrictions and maintaining strict business rules.
- Led a team of 5 while fostering a collaborative environment through weekly meetings, assigned roles and tasks, and served as the primary point of contact for the project, while coordinating team responsibilities, and problem solving to ensure project deadlines were met.

Rate Monotonic Scheduling | C++, Git   January 2024 - February 2024
- Developed a multi-threaded system to simulate task scheduling using the Rate Monotonic Scheduling algorithm, leveraging POSIX threads in C++.
- Designed a client-server system for task processing through optimized buffer management.
- Achieved efficient task scheduling and thread synchronization to avoid race conditions or deadlocks while improving overall system throughput.

Leadership & Involvement

CougarCS Operations Member   September 2024 – Present
- Coordinate and help manage events, ensuring smooth execution and communication with participants and vendors.
- Attend events for the club and network with companies while providing help for the overall event.

TECHNICAL KILLS

Languages: C++, Python, C#, SQL, JavaScript, HTML, CSS
Libraries and Frameworks: React, Flask, .NET, Express
Developer Tools: Git, Docker, Postman, Windows Subsystem Linux