

Luisangel Esparza

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EDUCATION

University of Houston

Bachelor of Science in Computer Science, Minor in Mathematics

- Coursework: *Software Design, Database Systems*
- NSM Dean's List: *Spring 2025*

Expected December 2026

Houston, TX

EXPERIENCE

Information Technology Intern

Harris County Precinct 2

- Developed and implemented a real-time network monitoring tracker, resulting in a 30% reduction in network downtime.
- Deployed a real time vehicle tracking system, enabling tracking and reports, resulting in optimized resource allocation.
- Resolved 50+ hardware issues and trained over 30 staff across 13 sites, improving overall operational efficiency.

July 2024 – August 2024

Houston, TX

Coding Instructor

Coder Kids

- Instructed 34 K-5 students on core and fundamental computer science topics through hands-on projects.
- Fostered student development and parent engagement through consistent weekly progress reporting.

January 2025 – May 2025

Houston, TX

PROJECTS

DevDoc AI | *Python, GPT4.1 nano, Git*

- Built an AI-powered assistant that answers programming questions using Retrieval-Augmented Generation.
- Reduced hallucinated responses by grounding outputs in official technical documentation for Python.
- Engineered a prompt injection pipeline with LangChain to retrieve the top-k contextually relevant documentation.
- Scraped and parsed documentation using requests and BeautifulSoup for downstream vector indexing.

June 2025 – Present

Master Mind | *C#, ASP.NET, NUnit, Next.js, Git*

- Implemented 25 unit tests using test-driven development with NUnit, reducing overall bug detection time.
- Created a RESTful API for game logic, enabling seamless integration of the game into diverse front-end apps.
- Designed an interface using Next.js, enhancing user experience through intuitive controls.

August 2024 – December 2024

Ship-It | *React.js, Express.js, MySQL, AWS, Git, Postman*

- Led a team of 5, organized weekly check-ins, delivered project requirements on time, utilizing Git for source control.
- Developed a responsive, dynamic, multipage shipping app with an intuitive user experience, integrating Next.js.
- Contributed to RESTful API creation, facilitating user authentication with Express.js, TypeScript, and Postman.

August 2024 – December 2024

LEADERSHIP

Corporate Relations Officer

CougarCS

- Build and maintain partnerships with 5+ companies, including Hewlett Packard and Paycom to host events.
- Coordinate weekly with event chairs, finance officer, and the VP for event planning, ensuring accurate information.

May 2025 – Present

University of Houston

Algorithms Workshop Director

CougarCS

- Directed and delivered tailored workshops for COSC 3320, providing 150+ students with critical study resources.
- Empowered a team of 3+ tutors, overseeing content creation and workshop facilitation, ensuring high-quality support.

January 2025 – May 2025

University of Houston

TECHNICAL SKILLS

Languages: Python, C#, C/C++, SQL, JavaScript, TypeScript HTML, CSS, R

Frameworks: React, Next, Node.js, Flask, ASP.NET, Express, Tailwind CSS

Developer Tools: Git, MySQL, Docker, Postman, WSL, AWS, Azure

Libraries: LangChain, BeautifulSoup