

# Israel Trejo

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## Education

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**University of Houston, Houston, TX**

Expected Graduation: Dec 2026

Bachelor of Computer Science — GPA: 3.64

## Professional Experience

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**Software Engineering and AI-ML Intern**

Oct 2025 - Present

Altairium

- Developing a website containing an AI grant-writing tool that automates key proposal sections, reducing draft creation time by 40% to help non-profits create grants
- Strong collaboration with 10 team members to research techniques, propose solutions & deliver project outcomes

**Undergraduate Research Assistant**

Aug 2025 - Present

University of Houston - Structures and Artificial Intelligence Lab

- Collaborating on cross-disciplinary projects with fellow assistants, through computer vision, robotics, digital twin technologies and deep learning to advance structural health monitoring solutions
- Delivered research presentations to peers, communicating technical findings and fostering knowledge exchange

**Data Structures Tutor Officer**

Aug 2025 - Present

University of Houston - CougarCS Tutoring

- Tutored 200+ students across core CS courses (Data Structures, Algorithms, Databases) through 1:1 sessions and workshops, improving exam readiness and understanding.
- Led 10 tutors in creating structured workshop slides and running exam-prep reviews, increasing organized sessions by 50% and standardizing instruction quality.

## Projects

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**CodeRED Hackathon** | Python, Streamlit, Numpy, Pandas, Sklearn, Matplotlib

Oct 2025

- Led a team of 4 in developing an AI-powered web app that identified optimal U.S. locations for renewable energy facilities, integrating geospatial & climate datasets for model training, improving decision efficiency by 35%

**Shell AI Hackathon 2025** | Python, Numpy, Pandas, Sklearn, Pytorch

Jul 2025 - Aug 2025

- Researched and developed models capable of predicting the final properties of complex fuel blends based on their constituent components & proportions. Achieving a 95.48 score—showing robust generalization on unseen data

**Coogs for Energy Hackathon Winner** | University of Houston

Feb 2025

- Designed a biomass-to-RNG conversion model that improved energy yield by 25% using lifecycle analysis, leading to judges' recommendation to pursue commercialization of the concept
- Worked in a diverse team of 6, which includes chemical engineers, business, and computer science majors

## Certifications

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**AI Micro-Credential** | Hewlett Packard Enterprise Data Science Institute

Sep 2025 - Present

- Pursuing coursework to develop both theoretical expertise and programming knowledge in Artificial Intelligence
- Courses include scientific computing in python, introduction to deep learning and large language models

**Google Cybersecurity Certification** | Coursera

Nov 2024

- Python, SQL, Shell/Terminal, SIEM tools & Linux. Threat identification, network security, online security

## Skills

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

**Frameworks:** React.js, Node.js, Express.js, Next.js, Three.js, Electron.js, Streamlit.py, Jasmine

**Databases:** MySQL, PostgreSQL, MongoDB

**Libraries:** NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Pytorch, Tensorflow, Keras

**Developer Tools:** VS Code, Git/GitHub, Jupyter, PowerBI, Tableau, RStudio, Excel, Docker, Linux, Rstudio, Colab

**Hobbies:** Spanish (Fluent), French (Novice), Comic Artist, Animator, Guitarist, Lift Weights