Julio Amaya

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Education

University of Houston — Houston, TX
B.S. Computer Science, GPA: 3.5 — *Jan 2024 – Dec 2025*

Lone Star College CyFair — Cypress, TX
A.S. Science, GPA: 3.5 — *Jan 2022 – Dec 2023*

Experience

Resort Vacations — Houston, TX
Sales Associate — *January 2024 – August 2024*

- Listened to each guest's story and needs to find what truly fit them - turning conversations into genuine trust and over 100 successful sales.

Lone Star CS Club — Cypress, TX
Vice President — *June 2023 – Dec 2023*

- Led weekly coding meetups for 50+ members, creating a space where students could learn, share mistakes, and grow together.

UH NSM-IEEE — Houston, TX
Communications Director — *August 2025 – Present*

- Connected hundreds of students with real engineering opportunities through clear communication, storytelling, and outreach that built community around purpose.

Projects

EcoScan: AI Recycling Guide |
React, TypeScript, Vite, Firebase, Google Gemini AI, Leaflet, Geoapify API 2025

- Built an AI-powered recycling guide for UH CodeRED Hackathon (ConocoPhillips Sustainability Challenge) that identifies item recyclability via image scanning and provides eco-friendly disposal suggestions.
- Integrated Google Gemini AI for image recognition, Firebase for real-time authentication and storage, and interactive maps for nearby recycling centers with user leaderboards and point tracking.
  `github.com/S-khudairi/CODEREDASTRA`

O'Hare Air: Air Quality Health Tracker | *Next.js, Google APIs, Prisma, Google Cloud Database* 2025

- Developed a mobile-first web app for HackRice IDSO Air Quality & Lung Health Challenge integrating live air-quality metrics (PM2.5, O_3, NO_2, wildfire/smoke data) with personalized health profiles.
- Implemented location-based risk assessments, saved-place tracking, and data-driven health guidance.
  `github.com/xijac1/HackRice2025`

VolunteerMatch: Event Connector | *React, Node.js, PostgreSQL, Firebase, Supabase* 2025

- Designed a platform to connect nonprofits and volunteers, enabling instant event creation and matching.
- Implemented real-time updates, notifications, and secure authentication.
  `github.com/xijac1/software-design-project`

NASA MITTIC: Technology Commercialization Challenge |
NASA, Innovation, User Research, Business Modeling 2023

- Collaborated with engineers and business students to identify commercial opportunities for NASA's lunar technologies and adapt them for real-world applications.
- Conducted user interviews, prototyped use cases, and developed proposals emphasizing human-centered design and practical innovation. `nasa.gov`

Heart Disease Predictor | *Logistic Regression, Random Forest, Scikit-learn* 2025

- Developed interpretable ML models to classify heart disease using UCI's dataset, achieving 88% accuracy.
- Prioritized fairness and interpretability to explore bias mitigation in healthcare datasets.
  `github.com/xijac1/Heart-Disease-Classification`

Diabetes Cluster Analyzer | *K-Means, Hierarchical Clustering, PCA, Matplotlib* 2025

- Performed clustering and dimensionality reduction to explore patterns in lifestyle and health data.
- Validated clusters using silhouette and gap statistics to ensure interpretability.
  `github.com/xijac1/Diabetes-Modeling`

Lunabotics Rover Planner | *Raspberry Pi, Embedded Systems* 2024

- Helped design an autonomous rover simulation for lunar mining, merging hardware and software under NASA-style constraints.
- Collaborated in testing and iteration to improve reliability and navigation performance.

Awards & Honors

Dean's List University of Houston NSM

Fall 2024 *Spring 2025*

- Honored for sustained excellence in CS coursework, balancing innovation with collaborative academics.

Technical Skills

Languages & Frameworks: Python (Scikit-learn, Pandas, Matplotlib), Java, C/C++, JavaScript/TypeScript (React, Next.js, Node.js), SQL (PostgreSQL)
ML & Data: Supervised/Unsupervised Learning (Regression, Classification, Clustering, PCA), Feature Engineering, Model Evaluation (ROC-AUC, Silhouette)
Tools & Systems: Git/GitHub, Docker, REST APIs, Cloud (Firebase, Google Cloud, Supabase), Embedded (Raspberry Pi), Geospatial (Leaflet, Geoapify)
Soft Skills: Cross-functional Collaboration, User-Centered Design, Rapid Prototyping, Ethical AI Advocacy