

Denisse Loya Villalobos

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Education

The University of Texas at El Paso

M.S. in Artificial Intelligence, GPA: 4.0/4.0

B.S. in Computer Science, Honors, Summa Cum Laude - GPA: 3.9/4.0

Concentration in Data Analytics, Minor in Math.

Relevant Coursework: Quantum computing, Data Science, Deep learning, Decision making, Data mining

Awards: NCWIT committee for aspirations in computing, CRA UR2PhD mentor, Infomatrix SOLACYT Platinum Award

El Paso, TX

Dec 2025

Dec 2024

Experience

Computing Alliance for Hispanic Serving Institutions

Graduate Research Assistant

El Paso, TX

Jan 2025 – Dec 2025

- Led 15+ interactive workshops (avg. 20 students each) to inspire undergraduate researchers toward graduate studies; mentored 90+ students, resulting in higher-quality graduate applications.
- Reviewed academic journals and posters for 70+ students; developed 3 data analytics reports to guide program development and optimize resource allocation.

Microsoft

Software Engineer Intern

Redmond, WA

May 2025 – Aug 2025

- Developed a **full-stack** dashboard for Azure IoT Operations using **Go** and **React TypeScript** to retrieve and visualize firmware images for IoT assets while keeping version control using **GitHub**.
- Designed and implemented backend with RESTful **API** endpoints to query firmware metadata and serve image files via **Azure Resource Graph/Manager**.
- Built interactive charts with **Fluent UI** to interpret API data, enhancing asset security by surfacing firmware vulnerabilities to OT users.

Microsoft

Software Engineer Intern

Redmond, WA

May 2024 – Aug 2024

- Implemented an end-to-end **WebAssembly** module in **Python** and **React TypeScript** to generate mock data and perform data transformations for OT users testing Azure IoT data pipelines.
- Containerized and deployed the module to edge devices and browsers using **Wasmer**, **kwasm**, and **kubectrl** via a **YAML** configuration and **Docker**.
- Provisioned and configured an Arc-enabled **Kubernetes** cluster to support hybrid deployment and testing of IoT services.

The University of Texas at El Paso

Teaching Assistant (Data Structures, Discrete Math, Computer Organization, AOOOP)

El Paso, TX

Sep 2022– Dec 2024

- Taught programming problem-solving courses in **Java**, **C**, and **Assembly** for **RISC-V** architecture.
- Led lab sessions for 200+ students, incorporating interactive activities like Kahoot to boost engagement.

Leadership & Activities

- **Girls Who Code - Vice President:** Hosted 15+ outreach initiatives (tablings, workshops, school visits) promoting coding for women in STEM.
- **Computer Science Council - Founder:** Established the council and partnered with the department chair to launch a student lounge and improve advising for students.

Projects

- **Brainiacs** – Developed with my team a rat brain atlas using **Flask** and **React**; implemented **CNNs** with image augmentation for classification and integrated real-time chat with **Socket.IO**.
- **Quantum Moves** – Built a **QUBO**-based solver for the chess mate-in-N problem; compared performance against **Stockfish** and a hybrid **AlphaZero**-quantum model.
- **Met Gala Classifier** – Trained a **CNN** and **SVG**-based model to classify Met Gala outfits as “on-theme” for the *Heavenly Bodies* exhibition using curated exhibition data.
- **INFILTR8** – Created a penetration test ranking platform with **Svelte** and **JavaScript** frontend; used ML to evaluate uploaded files across multiple pentest techniques.

Skills & Interests

Technical: Pytorch, Tensorflow, Pandas, Flask, Java, C, Scala, SvelteKit, JavaScript, Node.js, MongoDB, SQL, SciKitLearn, NumPy, GitHub, Figma.

Language: Spanish (Native), English (B2 Cambridge certification)

Interests: Volunteer at pet shelter, Crochet, Gym, Makeup, Fashion.