

Andres Gonzales

Harlingen, TX | (956) 245-8790 | andrisgonzalis@gmail.com | github.com/Andres-AI-Dev

OBJECTIVE

Building/Innovating AI products for education from both sides, as a former educator who understands the problems, and an engineer who can ship solutions. Currently developing district-wide AI platforms and conducting research in multi-agent systems. Passionate about bridging education and technology to improve outcomes for all stakeholders within education.

EDUCATION

University of Texas Rio Grande Valley

Master of Science in Computer Science (Thesis Track) – GPA: 4.0

Edinburg, TX

Summer 2025 – May 2026

University of Texas Rio Grande Valley

Bachelor of Science in Biology

Edinburg, TX

Aug. 2019 – May 2023

EXPERIENCE

AI Systems Engineer/AI Product Manager

Harlingen Consolidated Independent School District

July 2025 – Present

Harlingen, TX

- Architected district-wide AI application using React, TypeScript, and Vertex AI RAG Engine, serving 150+ administrators, reducing document lookup time by 80% and saving 5+ hrs/week per user
- Developing AI chatbot for public website and Chrome extension agent using Gemini 2.5 Pro, projected to reduce call center volume by 40% and improve community access to district resources
- Built Employee Engagement Dashboard with Next.js and Azure AD across 45+ campuses, eliminating 10+ hrs/week of manual reporting and enabling faster data-driven decisions
- Delivered AI presentations at Admin Kickoff, HLC Leadership Summit, and HAEF nonprofit, training 150+ leaders—driving 30% increase in AI tool adoption across departments

Graduate Research Assistant

Summer 2025 – Present

MARS Lab (Multi-Autonomous Robotics Swarm), UTRGV

Edinburg, TX

- Conducting multi-robot foraging research using PPO reinforcement learning algorithms in Webots simulation
- Collaborating on Human-AI Trust study (IRB 250672) investigating trust dynamics in AI-mediated communication

High School Chemistry Teacher & Science Department Lead

July 2024 – July 2025

Harlingen School of Health Professions, HCISD

Harlingen, TX

- Developed automated course scheduling platform using Power Automate, JavaScript, and SharePoint APIs, reducing scheduling effort by 90% for 400+ students at HSHP with district-wide scalability
- Engineered QR-based student tracking system with PowerApps, cutting front office workload by 50% and improving accountability across 400+ students
- Created self-monitoring academic tracker resulting in 25% grade improvement in pilot classroom
- Participated in district AI Innovation POD, leading to development of HCISD AI Application; presented AI tools training at district PD session

PROJECTS & RESEARCH

HCISD AI Platform | *React, TypeScript, Firebase, Vertex AI, GCP RAG Engine*

2025

- Full-stack RAG application connecting LLMs to district document storage, reducing admin research time by 70%
- Implemented secure document retrieval with role-based access for 150+ administrators across district

Employee Engagement Dashboard | *Next.js, TypeScript, Azure AD, SharePoint API, Recharts*

2025

- Real-time analytics dashboard tracking survey responses across 45+ campuses, saving 10+ hrs/week of manual reporting
- Integrated Azure AD authentication and SharePoint REST API for secure, live data synchronization

Human-AI Trust Research | *React, Vercel, Survey Design*

2025

- Developed survey platform examining trust perception across AI-only, AI-assisted, and human-only communications

Multi-Agent RL Foraging Simulation | *Python, Webots, Stable Baselines 3, MAPPO*

2025

- Built swarm robotics simulation achieving 95% collection rate using decentralized multi-agent reinforcement learning

LEADERSHIP & RECOGNITION

Google for Education Leadership Series, Chicago – October 2025

Presentations: HCISD Admin Kickoff AI Session, HLC Leadership Summit, HAEF Nonprofit AI Presentation – 2025

District Roles: Innovative Agent for Change, SHAC Secretary, AI Innovation POD – 2024–2025

School Roles: Apple Learning Coach, NHS Co-Sponsor, Class of 2029 Sponsor, PTSAs Member – 2024–2025

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, Java, HTML/CSS

Frontend: React, Next.js, Vue.js, Vite, TailwindCSS

Cloud & Backend: GCP (Vertex AI, RAG Engine, Vector Search), Firebase, Azure, Vercel, Node.js

AI/ML: OpenAI API, Stable Baselines 3, PyTorch, PPO, DQN, MAPPO, RAG

Business Automation: Power BI, Power Automate, PowerApps, SharePoint