AARON HERNÁNDEZ JIMÉNEZ

✉ a01642529@tec.mx   ⦿ /Aaron3312   in /aaron3312   💼 /Portfolio

EDUCATION

Tecnologico de Monterrey (ITESM)
B.S. in Computer Science   C/W: Advanced Algorithms, Networks, Cybersecurity   **August 2022 - June 2026**
Relevant Coursework
- Full-Stack Web Development, Cloud computing, Advanced Algorithms, IoT, Software Requirements, CCNA 200-301, SQL & NoSQL Databases, Cybersecurity Integration, Computational Methods, Next Development, OOP, Statistical Analysis, Computational agents, Computer vision, DevOps.

PROJECTS

BakeryPOS | JavaScript, Firebase, Python | Link | **December 2024**
Developed a comprehensive point-of-sale system for a local bakery, enabling offline functionality through IndexedDB, resulting in 99.9% system uptime and zero lost sales during internet outages
- Engineered a seamless order management system using Firebase Realtime Database, reducing order processing time by 65% and improving customer wait times from 10 to 4 minutes
- Implemented a Python-based thermal printer integration for automatic receipt generation, saving 2 hours daily on manual order documentation

Warehouse MultiAgent System | Unity-Python-YOLOv5 | Link | **November 2024**
Engineered a multi-agent warehouse simulation system using Unity and Python, featuring autonomous robots coordinating to organize objects in a complex environment.
- Implemented real-time computer vision using YOLOv5 with UDP streaming protocol, improving object detection speed by 40% compared to the previous base64 JSON system
- Designed an intelligent navigation system using NavMesh for dynamic obstacle avoidance and path optimization, enabling efficient object transportation across a two-story warehouse layout.

SupplyStream | React Native - Firebase | Link | **October 2024**
Developed an AI-powered inventory management system for Food Bank Guadalajara, reducing manual tracking time by 50% and saving staff 15 hours weekly
- Transitioned the application to a serverless architecture using Firebase, reducing operational costs by 30%
- Created an intuitive inventory management platform that uses AI to identify items through the device's camera and automatically catalog them, along with a barcode detection system.
- This automation streamlined manual tracking tasks, saving staff members around 15 hours per week on inventory management.

Cronos Project| Express-OpenAI-EJS | Link | **June 2024**
Developed a web platform for automating project creation and management using Node.js, Express, and PostgreSQL. Integrated Notion and OpenAI APIs, and started the server with NGINX on Google Cloud and AWS
- Automated the transformation of complex project descriptions into organized, actionable task lists using advanced descriptive prompts; improved task clarity and efficiency across 5 teams, reducing project setup time by 60%.
- Designed and created an interactive calendar interface to track deadlines and project progress, enhancing team visibility and reducing missed deadlines by 30%.

TECHNICAL SKILLS

Programming Languages	C++, Python, SQL, Arduino, JavaScript, Haskell, Java, C#.
Frontend	React, React Native, Next.js, Angular, Jquery, PHP.
Backend & Databases	PostgreSQL, Express, Node.js, Firebase.
Cloud & DevOps	AWS, GCP, Azure, Github Actions, Nginx.
Languages	Spanish, English.