

# AARON HERNÁNDEZ JIMÉNEZ



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/Portfolio

## PROJECTS

### BakeryPOS | Typescript, Firebase, Python | [Link](#) | Pasteleria la Guadalupeana Dec 2024 - Ongoing

Developed a comprehensive point-of-sale system for a 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](#) | ITESM November 2024

Engineered a multi-agent warehouse simulation system using Unity and Python for ITESM students, 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](#) | Food Bank Guadalajara October 2024

Developed an AI-powered inventory management system for Food Bank Guadalajara, reducing manual tracking time by 50%.

- 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](#) | Wizeline 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%.

## EDUCATION

### Tecnologico de Monterrey (ITESM)

B.S. in Computer Science

August 2022 - June 2026

#### Relevant Coursework

- Full-Stack Web Development, Cloud computing, Advanced Algorithms, Cybersecurity Integration, OOP, Statistical Analysis, Computational agents, Computer vision, DevOps.

## TECHNICAL SKILLS

**Programming Languages** Python, TypeScript, JavaScript, C++, Java, C#, SQL, Arduino

**Frontend Technologies** React, Next.js, React Native, Redux, jQuery, Cypress

**Backend & Databases** Express.js, FastAPI, Flask, Node.js, PostgreSQL, Firebase

**Cloud Platforms** AWS, Google Cloud Platform, Microsoft Azure, Oracle Cloud Infrastructure

**DevOps** GitHub Actions, Nginx, Vercel, Kubernetes, Docker

**Human Languages** Spanish (Native), English (Fluent)