

# Andres Mercado

## BACKEND SOFTWARE ENGINEER

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Backend Engineer with 2 years of experience designing scalable backend systems. Skilled in Python, SQL, and Flask, with a focus on building RESTful APIs, optimizing relational databases, and deploying backend services. Currently developing *Hey-Compa*, an OCR-powered AI assistant for bill management. Previously developed and deployed *AeroSkyOps*, an aircraft operations platform built with AWS, PostgreSQL, and Docker. Passionate about solving backend challenges and creating high-performance systems.

**LANGUAGES:** Python, JavaScript, SQL

**FRAMEWORKS:** Flask (with WTForms), Express

**Cloud & DevOps:** AWS (EC2, S3), Docker, Nginx

**DATABASES:** PostgreSQL, SQLite, MongoDB

**TOOLS:** GitHub, Postman

## WORK EXPERIENCE

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**Hey-Compa (Personal Project)** >> Backend Engineer > Remote

May 2025 – Current

Flask, SQLite, PostgreSQL, AWS, Docker, PaddleOCR

- **Developing a backend system** for Hey-Compa, an AI-powered OCR assistant that helps users understand and manage bills
- **Integrated PaddleOCR** to extract billing information (vendor, due date, amount) from uploaded images
- **Designed and implemented** a PostgreSQL schema to store and match bill data to vendor-specific payment instructions
- **Built modular, RESTful APIs** using Flask to power real-time bill guidance and user workflows
- **Future backend work** includes multilingual support, SMS reminders, and secure voice-response features

**Rabbit Aviation** >> Backend Engineer (Project: AeroSkyOps) > Remote

April 2022 – May 2025 [Live](#)

Independently developed AeroSkyOps, a deployed backend platform built to streamline aircraft ops at a private airport.

Flask, SQLite, PostgreSQL, AWS, Docker

- **Replaced an unstructured MongoDB** setup with PostgreSQL, introducing relational integrity for aircraft assignments, reducing manual errors, and improving database query efficiency.
- **Developed RESTful APIs** with Flask and SQLAlchemy to integrate near-live flight tracking and real-time weather updates via the FlightAware API, providing up-to-date aviation insights based on user-input tail numbers.
- **Utilized AWS (S3 & EC2)** for scalable data storage, ensuring high availability and system reliability.
- **Engineered a database-driven** aircraft parking assignment system that replaced manual tracking in internal testing, dynamically assigning aircraft to parking spots and improving operational efficiency.
- **Orchestrated Dockerized** backend services on AWS EC2, integrating Nginx and TLS encryption for secure, high-availability API access.

**Real Estate investor** >> Owner > Stockton, CA

October 2018 – Current

- **Achieved a six-figure income within** five years by strategically investing in and managing real estate, demonstrating strong market analysis and decision-making skills.
- **Managed a portfolio of properties with 14 tenants**, overseeing property maintenance, tenant relations, and financial management to ensure high occupancy rates and tenant satisfaction.
- **Built and led a reliable team**, coordinating various aspects of property management, from renovations to tenant communications, showcasing leadership and collaboration abilities.

## PROJECT EXPERIENCE

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**WUBER EATS** >> Flask, PostgreSQL, SQLite, WTForms, Render

[GitHub](#) > [Live](#)

An UberEats clone that allows users to create restaurants, add menus, leave reviews, and manage their shopping cart.

- Designed and implemented RESTful APIs with Flask and PostgreSQL to handle restaurant management, including menu creation, order processing, and user authentication.
- Optimized backend architecture for restaurant management, improving database efficiency for menu updates and seamless cart operations.
- Worked with teammates using WTForms and Render to streamline code integration, improving deployment reliability and team collaboration.

## EDUCATION

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**APP ACADEMY** >> Software Engineering

Completed June 2024

**Coding Dojo** >> Python, MERN Stack

Completed April 2022