

# Angel Vega

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## EDUCATION

### B.S. Computer Engineering

Minor in Applied Mathematics • Texas A&M University • College Station, TX • Expected Graduation: May 2027

- **Selected Coursework:** Data Structures and Algorithms; Computer Architecture; Software Engineering; Database Systems; Machine Learning

## EXPERIENCE

### Software Engineering Intern, Data Systems

Volkswagen

May 2025 – August 2025, Remote (Chattanooga, TN)

- Built an AWS data pipeline using **Kafka**, **S3**, **PySpark**, and **Redshift** that processed **420 million** events per day and kept feature freshness **under five minutes** with **99.9%** on-time delivery.
- Trained a delay-prediction model with **XGBoost** that reduced **MAE by 21%**, lowered station dwell **8%**, and improved throughput **5%**, validated through **A/B testing**.
- Deployed a **FastAPI** service on **Kubernetes** handling **250 requests per second** at p95 120 ms latency and **99.95%** uptime, adding tracing and alerts that cut **MTTR by 40%**.

### Software Engineering Intern

H-E-B

May 2024 – August 2024, Austin, TX

- Built **C++** tools with batch **MySQL** updates that reconciled point-of-sale, receiving, and inventory data and saved **80+ hours per month** while reducing shrink errors **40%**.
- Created a modular **C++** logging system with a **Python** analyzer that accelerated root-cause reviews and produced cleaner QA exports.

## PROJECTS

### Stamped

HackUTD – 1st Place, Sponsored by Goldman Sachs • [usestamped.us](https://usestamped.us) • November 2025

- Integrated **DeepSeek AI API** for adverse media screening, constructing compliance-focused prompts analyzing **9** risk categories (regulatory violations, fraud, sanctions, money laundering) with 3,000-token responses.
- Built **Next.js API route** handling POST requests to DeepSeek with structured JSON parsing, extracting findings with severity classification (Critical/High/Medium/Low) and actionable compliance recommendations.
- Engineered **prompt engineering system** for KYC/AML due diligence with system role context, temperature **0.3** for consistency, and regex-based JSON extraction handling malformed AI responses.

### Merchant

[github.com/advegaf/Merchant/](https://github.com/advegaf/Merchant/) • August 2025

- Implemented low-power location tracking using **Core Location Visits** and coarse updates that reduced energy use **85%** while maintaining timely updates.
- Improved place accuracy to **within 75 meters** using **MapKit** reverse geocoding and session resets.
- Built a rewards engine with **16 cards** and **51 rules** across **16 categories** that increased expected rewards **up to 5x** and delivered suggestions within **1 second** using **UNUserNotificationCenter** with rate limits and an audit log to prevent duplicates.

## LEADERSHIP

### Project Manager

Aggie Buddy | Aggie Data Science Club • Texas A&M University • August 2025 – Present

- Led a cross-functional team to build a **schedule optimizer** that balances classes, exams, study, gym, and social time.
- Managed sprints with user stories and acceptance criteria and tracked delivery with **GitHub Projects** and CI.
- Built **Python** and **FastAPI** APIs with **SQL** storage and integrated the **Google Calendar API** for two-way sync and shipped a **React/Next.js** web UI.

## SKILLS

Languages: **Python**, **Java**, **C++**, **Swift**, **TypeScript**, **JavaScript**, **SQL**

Backend: **FastAPI**, **Node.js** and **Express**, **REST APIs**, **microservices**

Data and ML: **Spark/PySpark**, **SQL**, **Airflow**, **Kafka**, **Redshift**, **PostgreSQL**, **MySQL**, **pandas**, **scikit learn**, **XGBoost**, **Great Expectations**

Cloud and DevOps: **AWS**, **Docker**, **Kubernetes**, **Git** and **GitHub**, **Terraform**

Front end: **React**, **Next.js**, **SwiftUI**, **CSS**