


CARL JOHN S. SALCES

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Taguig City, Philippines

EDUCATION

University of the Philippines – Diliman

B.Sc. Computer Science

Quezon City, Philippines

2022 – 2026

- Summa Cum Laude standing (GWA: 1.14)
- *Relevant Coursework:* Artificial Intelligence, Software Engineering, Database Systems, Data Science

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, SQL

AI & GenAI: Pydantic AI, LangChain, LlamaIndex, Google ADK, HuggingFace, AWS Bedrock, Docling, RAG

Data & Databases: PostgreSQL, SQLAlchemy, Drizzle, Supabase, Dagster

Cloud & DevOps: AWS (EC2, ECS, Lambda, S3), Docker, Vercel, Railway

Web Frameworks: FastAPI, Next.js, SvelteKit

Mobile: Expo, React Native

WORK EXPERIENCE

Software Engineer Intern

Bscale Labs

Taguig City, Philippines

February 2026 – Present

- Created a tool-augmented chatbot system with 10+ analytics tools and SSE streaming, enabling operators to query operational data through natural language
- Engineered an LLM document generation pipeline that bundles multi-source operational data into structured JSON and renders professional PDF reports, replacing manual report assembly
- Built a cross-platform mobile app with React Native and Expo serving as the primary interface for a real-time operational platform across iOS and Android

Software Engineer Intern

Control Flow Labs

Taguig City, Philippines

May 2025 – January 2026

- Built a multi-agent AI chat system that replaced manual report generation for e-commerce shops of 10 client companies, allowing them to see sales and ad performance more efficiently
- Developed ETL pipelines syncing order, inventory, and ad performance data from Shopee, Lazada, Shopify, TikTok Shop, and Meta Ads into a unified PostgreSQL warehouse enabling cross-platform analytics for clients
- Migrated batch workflows to serverless AWS Lambda functions, reducing latency and operational costs by 20%

Project Lead & Software Developer

UP Office of Student Projects and Activities

Quezon City, Philippines

March 2025 – May 2025

- Led a team of 7 in developing an internal content management system and automated room booking system serving 212 university-wide student organizations

PROJECTS

ChatUPD | *UP Diliman's RAG Knowledge Assistant*

- Engineered a full-stack RAG chatbot for UP Diliman, currently in beta helping 200+ CS students and advisers with enrollment and university-related concerns
- Designed a multi-stage retrieval pipeline: query classification, rewriting, multi-query expansion, hybrid search (cosine + BM25 in PostgreSQL with pgvector), cross-encoder reranking, and citation-mapped streaming generation
- Built a RAGAS-based evaluation framework with 97% faithfulness, 95% answer relevancy, and 85% factual correctness based on initial testing

HushMap | *Real-Time Urban Noise Monitoring System*

- Built an interactive web app visualizing real-time noise levels from self-made IoT sound sensors (ESP32 & INMP441 microphone), deployed and used by Brgy. Krus na Ligas, Quezon City for two months
- Developed analytics with time-series charts, statistical summaries, and AI-generated noise insights via Gemini

AsukAI | *Sugarcane Disease Classifier*

- Trained a 15-CNN ensemble achieving 96.64% accuracy across 6 sugarcane disease classes, enabling early detection from leaf photos to reduce crop loss
- Deployed a full-stack web app with a FastAPI inference server for real-time classification