

Rhenier Gustilo

Software Engineer: Machine Learning & Backend

Navotas City, Metro Manila, Philippines · rheniergustilo06@gmail.com

rhengtl.tech · github.com/RhenGTL · linkedin.com/in/rhengtl



SUMMARY

Computer Engineering graduate (ML specialization) building complete software — ML and LLM features, backend services, APIs and apps — tested and measured. Seeking software engineering and backend roles, Philippines or remote.

EDUCATION

BS Computer Engineering, ML specialization — Polytechnic University of the Philippines

Sep 2026

President's Lister, 7 semesters · GWA 1.38 (scale 1.00–5.00, 1.00 highest)

Thesis: "EarPrompt: A Real-Time Conversational AI Assistant for Enhancing Verbal Communication"

PROJECTS

ConTeX — handwriting and PDFs to LaTeX, compiled in the browser · lead developer · team of 4

2025–26

- Ported a Flask app to Cloudflare Workers plus in-browser pdfTeX: 34 ms warm compiles, byte-identical output.
- Ran a pre-launch security audit; closed a prompt-injection path and blocked TeX file-read primitives.
- Wrote 1,015 automated checks across 9 suites and a GitHub Actions pipeline that tests, deploys and smoke-tests.

TindaBot — offline-first restock planner for sari-sari stores · solo

2026

- Built a React/TypeScript PWA on an append-only IndexedDB event log, with Supabase/PostgreSQL sync under RLS.
- Wrote 456 automated tests; business rules are checked against an independent Python reference model.
- Made recompute 2.6–8.3× faster in desktop benchmarks and cut start-up on a budget phone from 3.3 s to 2.0 s.

EarPrompt — real-time AI conversation coach on a Raspberry Pi 5 · thesis · team of 4 · lead developer

2025–26

- Wrote 2,465 of 2,663 lines of the speech pipeline: VAD, ECAPA-TDNN speaker ID, STT, GPT-4.1 mini, streaming TTS.
- Reached 3.8 s average / 4.2 s P95 end-to-end latency over 3 test sessions at US\$0.02–0.07 LLM cost per 30-min session; 'High' acceptability (2.81/4) from 1 patient and 3 speech therapists.
- Built the device's Flask API and about 90% of the companion Flutter app.

TomatoSense — tomato ripeness classifier · solo

2026

- Trained an OpenCV + PCA + SVM model served by FastAPI; 96.25% accuracy on an 80-image stratified held-out set.

Also built: TextSnip, Android on-device OCR (Flutter, Kotlin) · ClickMap, a Windows input utility (C#, .NET)

EXPERIENCE

IT & Security Systems Intern — WJS Inc. (Webtek)

Jul–Sep 2025

- Deployed CCTV, fire alarm, PA, biometric and kiosk systems for hospitals, government sites and venues, including their LAN cabling, port addressing and switch/router troubleshooting.
- Produced AutoCAD layouts, manuals and turnover reports; trained incoming interns.

Technical Support Intern — RVCom Computer Trading

Jul–Sep 2024

- Resolved hardware and software issues for 20+ clients a week; kept service logs to track recurring faults.

Web Design Intern (Work Immersion) — DOST – Philippine Nuclear Research Institute

Mar–Apr 2022

- Redesigned government web-app UI components for accessibility; tested and debugged them before release.

SKILLS

Languages: Python, TypeScript, JavaScript, SQL, Dart, C#, Kotlin

Backend & data: FastAPI, Flask, WebSockets, Cloudflare Workers, PostgreSQL (Supabase, RLS), Firebase, IndexedDB

ML & AI: PyTorch, scikit-learn, OpenCV, TensorFlow/Keras, ONNX Runtime, LLM APIs (OpenAI, Gemini), SpeechBrain

Frontend & tools: React, Flutter, PWA, WebAssembly, Git, GitHub Actions, Vitest, Playwright, Linux, Docker (basic)

AI-assisted development: Claude Code; AI output reviewed and verified with tests, code review and device testing

CERTIFICATIONS & TRAINING

Machine Learning with Python — freeCodeCamp (2026) · Hugging Face Agents Course — certificate of completion (2026) ·

Kaggle Learn: Intro to Machine Learning, Intermediate Machine Learning, Intro to Deep Learning, Computer Vision (2026) ·

AWS Cloud Practitioner Essentials — AWS Training & Certification, course completion (2026) · CCNA: Switching, Routing, and

Wireless Essentials — Cisco Networking Academy course (2025)

Updated October 2026