

Harold Martin Patacsil

Manila, Philippines

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EDUCATION

Polytechnic University of the Philippines

Bachelor of Science in Computer Science

- President's Lister (2x consecutive semesters)
- Focus: Machine Learning, Quantitative Research, Algorithms, Software Engineering

Manila, Philippines

Aug 2023 – Jul 2027

AWARDS & COMPETITIONS

Delegate – JPMorganChase FYF Operations Program: 1 of 46 invited from 956+ applicants; hands-on exposure to global transaction processing (\$10T+ daily), data analysis, and process improvement.

Winner – Founders Arena, Philippine Blockchain Week 2025: Led startup pitch of ElectrifiAI PH through semifinal and grand final rounds, presenting to venture capital investors and senior executives from IBPAP and PSIA, including SBI Holdings (\$12.41B) and VC-backed (\$10M) founders.

Exchange Student – Devcon 7 SEA, Ethereum Foundation (Nov 2024, Bangkok, Thailand): Selected as a student developer representative; participated in global sessions on L2 scalability, ZK proofs, account abstraction, and decentralized application infrastructure.

Champion – StartUp Hackathon 2023 (1st of 75 teams): Built *weConnect*, a smart city governance superapp; granted PHP 100K seed funding with local government and University of the Philippines Los Baños Technology Transfer and Business Development Office backing.

Qualifier – WorldQuant BRAIN International Quant Competition 2025: Built and backtested alpha signals on market data, applying quantitative finance and trading logic.

EXPERIENCE

Chief Technology Officer

ElectrifiAI PH Solutions Corp.

Jul 2024 – Present

ADB Avenue, Ortigas Center Pasig City

- Led full-stack architecture for an IoT-integrated energy management system (EMS) spanning mobile-first prototypes (React Native, Firebase, Supabase, GCP) through ESP32/Arduino with MQTT-based data pipelines.
- Designed time-series energy analytics pipelines with multi-resolution aggregation (hourly/daily/weekly/monthly), enabling anomaly detection and consumption forecasting on live IoT streams.
- Led market research, investor strategy, and stakeholder engagement for an IoT-driven energy optimization platform aligned with UN SDGs 7, 9, 12, and 13, raising **PHP 2.3M** in pre-seed funding through startup competitions, industry incubator and venture accelerators.

Founder & Lead Software Engineer

martinsoft

Oct 2022 – Present

Manila, Philippines

- Founded a software development studio at age 19, initially serving clients in the Philippines before expanding to international clients across New York, Germany, and Australia. Delivered 30+ web development projects including business platforms, Web3 applications, e-commerce systems, and AI automation tools.
- Generated **PHP 700K+** in revenue through freelance contracts, white-label partnerships, and direct client engagements, building early experience in client acquisition, product scoping, and full-stack delivery.
- Evolved from solo developer into co-leading a 5-person engineering team within a broader cross-functional startup structure, overseeing product development execution, and deployment workflows.

Software Engineer

WizyVision SAS

Feb 2025 – Jul 2025

Quezon City, Metro Manila, Philippines

- Modernized a 10-year legacy enterprise frontend monolith, reducing feature delivery time by **30%** and resolving **20+ production issues** across environments.
- Collaborated within Agile sprints, improving team velocity by **20%** in Atlassian ecosystem.

Senior Frontend Developer

Sep 2024 – Feb 2025

Vendorapp Pte. Ltd.

Hampton Wick, Kingston Upon Thames, Surrey, United Kingdom

- Built a B2B SaaS vendor management platform integrating **15+ REST APIs** from a C# backend (Swagger UI).
- Delivered **40+ responsive screens** and led **10+ user experience enhancements** for enterprise workflows.
- Worked directly with the executives on early-stage product development, translating business requirements into scalable frontend systems within an Agile development environment.

Software Engineer Intern

Jul 2024 – Sep 2024

Fit2gether backed by Block Dojo

30F, RCBC Plaza Yuchengco Tower, 6819 Ayala Ave, Makati City

- Built gamification features for a fitness and P2P multiplayer mobile app using Swift, Flutter/FlutterFlow, Firebase, and Google Play Console / TestFlight pipelines.
- Worked in Agile sprints, boosting release speed by **15%** and resolving **20+ stability issues**.

Frontend Engineer

Mar 2024 – Aug 2024

StackSpace

Quezon City, Philippines

- Built Next.js + Tailwind distributor platform serving 100+ users; automated workflows and gamified operations, increasing revenue by 25% and reducing operational costs by 20%.
- Delivered 15+ UI features per sprint with 90%+ on-time completion rate.
- Integrated analytics dashboards tracking 10+ KPIs, improving distributor performance by 30%.

PROJECTS

BOPIS: Bayesian Optimization for Energy-Efficient LLM Inference | *Undergraduate Thesis (In Progress)*

- Developing an ML optimization system using Bayesian optimization and Pareto multi-objective selection to tune Local LLM inference configurations, minimizing cost, energy consumption, with latency and output quality trade-offs in constrained compute environments.

NginFx – Forex Backtesting Engine | *TypeScript, LLM Integration*

- Built a Forex research pipeline in TypeScript processing 8 major currency pairs across 3 data sources (Alpha Vantage, Yahoo Finance News API); implemented Merge Sort ($O(n \log n)$) benchmarked against Bubble Sort ($O(n^2)$), achieving superior sort efficiency at scale, and integrated DeepSeek R1 via Groq to generate sentiment-weighted signal summaries from live news pipelines.

Quantica Capital – Trading Simulator | *MySQL, REST API, Full-Stack*

- Designed and built a full-stack stock brokerage simulator with a normalized MySQL schema (3NF), RESTful API layer, and end-to-end order flow logic (creation, execution, persistence).

Storm Surge Prediction System | *Deep Learning, Spatiotemporal AI Research*

- Developing a ConvLSTM + CBAM attention deep learning model for Philippine storm surge forecasting using ERA5 reanalysis data; targeting reduced computational complexity vs. traditional hydrodynamic models (ADCIRC, $O(n^3)$).

CERTIFICATIONS

AI Engineer for Developers Associate – DataCamp

AI Fluency Framework & Foundations – Anthropic

Foundry & AIP Builder Foundations – Palantir Technologies

AWS Certified Cloud Practitioner (CLF-C02) – Amazon Web Services

McKinsey Forward Program – McKinsey & Company

Networking Basics – Cisco

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript (ES6+), C, C++, Java, SQL

ML / AI: Google Collab, TensorFlow, scikit-learn, NumPy, Hugging Face, LangChain, Bayesian optimization, ConvLSTM, Isolation Forest, time-series analysis, Claude, Codex, Gemini, Phi, Local LLM Inference

Quant / Data: Alpha signal research, backtesting engine design, financial data pipelines (Alpha Vantage, Yahoo Finance, Trading View), statistical modeling

Backend / DB: Node.js, FastAPI, PostgreSQL, MySQL, MongoDB, Firebase, Supabase

Cloud / DevOps: AWS, GCP, Azure, Docker, GitHub Actions

Sentinel Ambassador (Tech Lead)

Mar 2025 – Mar 2026

Oasis Protocol

- Led ROFL 101 (Runtime Off-chain Logic) workshop for 50+ student developers alongside an Oasis Labs Senior Engineer, covering TEEs, confidential compute, and privacy-first Web3 infrastructure.
- Co-led operations for the ROFL Mainnet Launch Crypto Night, coordinating 30+ Web3 founders, KOLs, angel investors, and engineers to expand the \$ROSE ecosystem.

Software Development Lead

Sep 2023 – Sep 2024

Google Developer Student Club, PUP Manila

- Led and mentored 200+ cadets across AI/ML, UI/UX, Data, and Cybersecurity tracks with 2 co-leads and 6 subject matter experts; reported directly to chapter CTO.

Co-Developer, PyGabay Event App

Oct 2023 – Feb 2024

Python.PH, Inc.

- Co-developed PyGabay, a production event app for PyCon PH 2024, serving **400+ concurrent attendees** live; contributed to full app development lifecycle from build to deployment.

Associate Director for Startup Development

Dec 2024 – Dec 2025

AWS User Group e:Novators Philippines

- Directed startup development programs for student technopreneurs at PUP, connecting members to cloud-tech resources, mentorship, and AWS ecosystem opportunities.

Member

Oct 2024 – Oct 2025

ASES Manila (Affiliated Stanford Entrepreneurial Students)

- Active member of the Manila chapter of the Stanford-affiliated global student entrepreneurship network; engaged in startup ecosystem events, design thinking, and cross-border founder community building.

Guest Speaker

Feb 11, 2026

University of the East

Manila, Philippines

- Delivered a technical talk for 50+ students on AI agent development, covering practical workflows with MVC principles, Antigravity IDE, and Gemini 3.1 Pro for agentic engineering.

Technical Workshop Lead

Feb 22, 2026

AWS Learning Club – UE Caloocan

- Led a workshop on product development, AWS fundamentals, and Kiro IDE for agentic development alongside Dr. Mike Ó Conroy; focused on translating hackathon ideas into deployable MVPs and investor-ready pitches.

Reservist

Jul 2024 – Present

Armed Forces of the Philippines

- Completed reservist training and maintains ongoing service commitment; developed discipline, operational rigor, and structured team coordination under AFP command.

Team Captain & Ace Spiker

Jun 2016 – Mar 2023

Boys Volleyball Team

Grade 6 – Senior High School

- Captained school volleyball team for 7 years; led training coordination, team strategy, and performance management across interschool competitions.