Zherish Galvin P. Mayordo

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Summary

Computer Engineering graduate specializing in Business Process Automation (BPA). Experienced in designing automation workflows, integrating business systems, and developing reliable software solutions that reduce manual work and improve operational efficiency. Skilled in Python, TypeScript/JavaScript, APIs, Docker, Linux, and cloud technologies, with a background in backend development and DevOps to build scalable, maintainable automation systems.

Technical Skills

Languages: Python, TypeScript/JavaScript, SQL, Bash
Backend: FastAPI, Flask, Fastify, Express.js, Next.js
Cloud & DevOps: Docker, Google Cloud Platform (GCP), GitHub Actions, Git, Linux
Automation & Integration: n8n, HubSpot, REST APIs, Webhooks
Testing: PyTest, PyUnit, Jest, Mocha & Chai, Behave, Cucumber (TDD/BDD)

Work Experience

Automation Engineer — Jun 2026 – Present
Freelance — Philippines

- Engineering scalable automation workflows using n8n, APIs, webhooks, and AI services to integrate business systems and reduce manual work for service-based businesses.

Trading Algorithm Programmer — Jul 2024 – Nov 2025
Robin Ho — Singapore (Remote)

- Developed algorithmic trading strategies and technical indicators based on employer specifications using TradingView (Pine Script) and MetaTrader 5 (MQL5)
- Deployed trading algorithms and technical indicators across multiple asset classes, including stock indices, foreign exchange (forex), commodities, and cryptocurrencies remotely on Windows Virtual Private Server (VPS)
- Built a Telegram chatbot leveraging webhooks and Telegram BotFather to automate signal delivery for subscribed users

Researcher Intern — Mar 2024 – Jul 2024
DOST - Advanced Science and Technology Institute — Quezon City, PH

- Trained a convolutional neural network (CNN) model in TensorFlow for motor condition diagnosis on 3,750 time-series motor current signals transformed into STFT, Gabor, and Wavelet representations
- Experimented with different configurations of STFT, Gabor, and Wavelet transformations to achieve the best results for the CNN model
- Performed exploratory data analysis (EDA) on publicly available predictive maintenance datasets on motor condition diagnosis
- Co-authored IEEE conference papers on deep learning-based fault diagnosis using signal transformation techniques

Educational Level

Technological Institute of the Philippines — Quezon City, PH
Bachelor of Science in Computer Engineering, Specialization in Intelligent Systems — Aug 2020 – May 2025

- President's Lister: 2nd Semester A.Y. 2020-2021, 1st Semester A.Y. 2022-2023
- VPAA's Lister: 1st Semester A.Y. 2021-2022

- Dean's Lister: 1st Semester A.Y. 2023-2024
- Software Design and Architecture, Software Development Lifecycle (SDLC), Linux, Data Structures and Algorithms, Cisco Networking

Trainings & Certifications

Note: Certifications include embedded links for verification

DevOps and Software Engineering Professional Certificate view — Nov 2025 - Mar 2026
IBM — DevOps, Cloud, Software Engineering

- Covered SDLC, Agile methodologies, microservices and serverless architectures, TDD/BDD, and core DevOps practices including CI/CD, containerization, container orchestration, application security, and observability
- Implemented CI/CD pipelines and DevOps workflows using GitHub Actions, Docker, Kubernetes/OpenShift, Tekton, Snyk, and Prometheus through hands-on labs

Machine Learning Specialization view — Oct 2025 - Nov 2025
DeepLearning.AI & Stanford University — Python, Machine Learning, Model Evaluation

- Completed supervised, unsupervised, and reinforcement learning modules covering key algorithms such as linear regression, clustering, and Q-learning using Python and TensorFlow
- Applied best practices in building, training, and evaluating machine learning models, including regularization, bias-variance tradeoff, and performance metrics
- Implemented end-to-end machine learning pipelines to solve real-world problems across classification, regression, and recommendation tasks

Achievements & Other Experiences

Note: Some project, achievement, and research titles include embedded links to supporting resources

Smart Reddit Search — 2026
n8n, AI, RAG, Automation — github.com/zhrssh/n8n-reddit-rag

- Built an automated AI-powered Reddit search workflow that retrieves, filters, and indexes Reddit posts into a vector database for semantic search.
- Reduced manual searching and skimming of Reddit discussions from several minutes to a few seconds, enabling faster research and information retrieval.

Kuya Bong's Car Selection App — 2026
Python, Flask, React, Docker, Docker Compose, DevOps — github.com/zhrssh/kuya-bongs-car-selection-app

- Developed a full-stack web marketplace for browsing pre-owned vehicles using React and TypeScript for the frontend and Flask for the backend, with separate interfaces for customers and back-office management.
- Containerized all services for cost-effective single-VM deployment using Docker Compose, consolidating the frontend, admin dashboard, and backend API into one host.
- Automated environment setup and deployment workflows using Makefile and Docker Compose.
- Configured Traefik as a reverse proxy with *mkcert*-generated certificates to enforce HTTPS on local development environments.

Self-hosted Modded Minecraft On-prem Server — 2026
Docker, Portainer, Tailscale

- Deployed a containerized Minecraft server on a spare Fedora-based laptop, serving as the host, and enabled secure remote access for invited users via Tailscale
- Managed server maintenance, runtime, and mod deployment remotely using Portainer, including configuring and maintaining modded server environments
- Implemented automated incremental backups to enable fast snapshots while minimizing storage usage compared to full backups

Design of Optimized Path Generation for Physical Guidance-Driven Collaborative Robot Using Metaheuristic Algorithm — 2025
Python, FastAPI, JavaScript, React, Next.js, C++, Arduino — github.com/Kinectica

- Built an end-to-end hardware and software system for a collaborative robotic arm, allowing users to control the robot arm using their mobile device

- Automated system setup using Bash and Python scripting to initialize required services and establish WebSocket connections, reducing setup to WiFi configuration only and enabling immediate operation
- Integrated Learning from Demonstration (LfD) with Genetic Algorithm (GA)-based optimization to improve task execution of the robotic arm
- Reduced execution time by over 90% while maintaining full task accuracy

Project MaSense – Motor Fault Diagnosis System for Predictive Maintenance 2024

Python, TensorFlow, Data Engineering, Model Evaluation

- Co-authored "Machine Condition Diagnosis Using Deep Learning and Gabor-Transformed Motor Current Signatures" published in TENCON 2024 - 2024 IEEE Region 10 Conference (TENCON) — ieeexplore.ieee.org/document/10903100
- Co-authored "Deep Learning-Based Machine Condition Diagnosis Using Short-Time Fourier Transformation Variants" published in 2024 International Conference on Diagnostics in Electrical Engineering (Diagnostika) — ieeexplore.ieee.org/document/10693710