

GALEN NAYAKA NAYOTTAMA

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CAREER OBJECTIVE

Software Engineer and Information Systems graduate from BINUS University specializing in enterprise full-stack architectures, ERP systems, and machine learning microservices. Experienced in developing multi-tenant business software with Laravel, Python (FastAPI), Next.js, and complex MySQL relational schemas, backed by an IEEE research publication. Passionate about building robust, high-throughput enterprise systems and quantitative financial software.

EDUCATION

Bachelor of Science in Information Systems, BINUS University 2022 – 2026

Research Track Scholar (Achieved 4.00 GPA in consecutive Research semesters)

- **Core Coursework:** SDLC, Enterprise Architecture, Systems Analysis & Design, Database Systems Design, Business Process Management (BPM), Information System Security, Analytical IS, IS Strategy Management.

EXPERIENCE

Enterprise ERP Software Engineer Jul 2026 – Aug 2026

PT Ulga Mitra Investama (Contract / Freelance)

- Architected and delivered a multi-business, multi-location POS and Enterprise Resource Planning (ERP) application covering raw material procurement, inventory, and automated distribution pipelines.
- Engineered a 7-step Bill of Materials (BOM) manufacturing workflow with automated shortfall detection and linked sales-order production triggers.
- Implemented complete double-entry accounting ledgers (balance sheets, cash flow, trial balances), distributor DPP/PPN tax-pricing models, and inter-company commission settlement systems using Laravel, MySQL, and Spatie RBAC.

Full-Stack Web Developer 2019 – Present

Freelance / Self-Employed

- Engineered end-to-end enterprise web applications, including custom ERP-type systems, SaaS platforms, progressive web apps (PWAs), marketplaces, and client company profiles.
- Designed and optimized normalized relational MySQL schemas, ensuring indexing efficiency, data integrity, and low query latency.
- Developed robust backend business logic, secure multi-user role authentication, and custom administrative management dashboards using PHP and Laravel.
- Managed Linux-based server deployments (Apache CLI), remote server access via PuTTY/SSH, FTP file synchronization, and DNS configurations across Linode and Namecheap.

PUBLICATIONS

Needs Analysis and AI Competency Among Indonesian Students: An Adaptive Study Based on International Frameworks Oct 2025

- **Venue:** 2025 IEEE 2nd International Conference on Cryptography, Informatics, and Cybersecurity (ICoCICs)
- **Link:** [IEEE Xplore \(DOI: 10.1109/ICoCICs68032.2025.11383883\)](https://ieeexplore.org/document/10.1109/ICoCICs68032.2025.11383883)
- Investigated AI competency and needs analysis among higher education students in Indonesia using international frameworks to evaluate student readiness and curriculum alignment.

PROJECTS

Enterprise POS & ERP System — PT Ulga Mitra Investama

[Project Details](#) | [\[Enterprise\]](#)

PHP, Laravel, MySQL, AdminLTE, Spatie RBAC, jQuery, Highcharts

- Engineered a multi-business, multi-warehouse ERP managing raw material procurement, 7-step Bill of Materials (BOM) production workflows, and automated shortfall-to-production order generation.
- Implemented complete accounting ledgers (balance sheets, trial balances, cash-flow reports), custom DPP/PPN distributor pricing rules, and an inter-company commission settlement system.

DEX Liquidity Predictor

[GitHub](#) | [Live Demo](#)

Next.js 14, Python (FastAPI), Web3.py, XGBoost, Quantile Regression, WebSockets, Tailwind CSS

- Built a real-time DeFi risk terminal streaming Uniswap v3 Swap/Burn logs and pending mempool transactions via WebSockets for sub-second drain alerts and exact Q64.96 fixed-point price-impact math.
- Deployed an 8-feature XGBoost drain classifier alongside a multi-quantile XGBoost model (2.5%, 50%, 97.5%) forecasting next-day crypto prices based on macro indicators (DXY, Gold, S&P 500, GPR).

StockPrediction — AI-Powered Financial Terminal

[GitHub](#) | [Live Demo](#)

Laravel 12, Python (FastAPI), XGBoost, Random Forest, SEC EDGAR XBRL, MySQL, Alpine.js

- Engineered an equity analysis microservice architecture pairing automated SEC EDGAR 10-K/10-Q XBRL parsing with a 6-trend fundamental heuristic to produce interpretable BUY/HOLD/SELL signals.
- Integrated an XGBoost + Random Forest ensemble trained on historical OHLCV data to forecast target prices and dynamic momentum alignment inside a high-density Bloomberg-style interface.

AI-Loan / CreditScore AI — Automated Underwriting Platform

[GitHub](#) | [Live Demo](#)

Laravel 12, Python (FastAPI), XGBoost, SHAP, Scikit-learn, MySQL, Tailwind CSS, Alpine.js

- Developed an automated loan underwriting platform utilizing an XGBoost classifier across 14 engineered financial/demographic ratios (DTI, PTI, cash-flow coverage) to predict Default Probability (PD).
- Integrated SHAP-style dynamic attribution for explainable risk factors, backed by a synchronized PHP heuristic scorecard fallback ensuring zero-downtime application processing.

VOLUNTEERING

Student Volunteer & Presenter

Nov 2022 – Dec 2022

Teach For Indonesia (TFI) — SMA Kolese Gonzaga

- Co-developed and presented educational material centered on anti-racism and Character Building (Pancasila) to high school students.
- Facilitated interactive group discussions, icebreakers, and Q&A sessions to foster social awareness and civic responsibility.
- **Media Documentation:** [YouTube Video Documentation](#)

TECHNOLOGIES & SKILLS

Languages

PHP, Python, JavaScript, TypeScript, SQL, Java, HTML5, CSS3

Frameworks & Web

Laravel, FastAPI, Next.js 14, React 18, Alpine.js, Tailwind CSS, Blade, AdminLTE

Machine Learning & Quant

XGBoost, Scikit-learn, SHAP, NumPy, Pandas, Quantile Regression, Web3.py, yfinance

Databases & Tools

MySQL, SQLite, Git/GitHub, REST APIs, WebSockets, Chart.js, Highcharts, Linux (