

Nico Valerian Marcello

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EXPERIENCE

Bina Nusantara Computer Club (BNCC)

Sep. 2023 – Sep. 2025

Learning and Training Manager

2024 - 2025 | Tangerang, Indonesia

- Directed a team of **4 staffs** and **6 IT tutors** to scale internal training programs across 5 core tracks: UI/UX Design, Front-End, Back-End, Java, and C Programming
- Oversaw delivery of **11 programming classes**, maintaining operational efficiency, content consistency, and learner engagement across all cohorts
- Coordinated tutor assignments, scheduling, and feedback loops to facilitate training for **140+ students**, optimizing the end-to-end learning experience
- Initiated **Machine Learning** as a new core track, authoring its foundational learning modules and lesson plans to expand the curriculum from 5 to 6 offerings
- Organized a **Company Visit** for **50+ students** to one of Indonesia's largest IT distributors as an industry exposure program for LnT final project completers

Learning and Training Activist

2023 - 2024 | Tangerang, Indonesia

- Developed and revised learning modules and lesson plans for **Back-End Development** and **Java** tracks within Learning and Training Class, aligning content with industry-relevant programming standards
- Evaluated **15+ tutor candidates** through structured interviews, contributing to the selection pipeline that built BNCC's core teaching team
- Completed the **Leadership Development Program (LDP)**, producing a semester-long operational roadmap adopted as the foundation for BNCC's training cycle

Bina Nusantara (BINUS) University

July 2024 – Jan. 2026

Scholarship Mentor

Tangerang, Indonesia

- Facilitated study groups and mentoring sessions, notably guiding mentees to **increase their GPA by up to 18%** within a single year
- Delivered structured academic reports and feedback to program coordinators, tracking mentee progress across **25+ sessions** to inform program-wide improvements

PROJECTS

Studium

- Built an AI-powered study buddy with **Next.js 14** and **TypeScript**, implementing a full RAG pipeline covering chunking, **HuggingFace** embeddings, and **pgvector** similarity search to enable context-aware document chat
- Engineered automated flashcard generation and PDF/DOCX ingestion with **Supabase**, deployed on **DigitalOcean App Platform** with Lighthouse CI and Playwright E2E test coverage

TangCare

- Built a hyperlocal charity logistics platform connecting donors to verified foundations in Tangerang, Indonesia via real-time geolocation mapping using **Leaflet.js** and OpenStreetMap
- Implemented multi-role RBAC (Role-Based Access Control) and a reactive multi-step donation workflow with live status tracking using **Laravel 11**, **Livewire 3**, and **MySQL**

Balatro Coach

- Developed a full-stack AI coaching app with a **React/FastAPI** architecture and integrated computer vision (**YOLO11n ONNX** + **RapidOCR**) to extract real-time game state from user screenshots
- Built a hybrid RAG retrieval pipeline combining **ChromaDB** vector search and **BM25** with Reciprocal Rank Fusion; containerized with **Docker Compose** and deployed via **GitHub Actions** CI/CD

EDUCATION

Bina Nusantara (BINUS) University

Undergraduate in Computer Science | **GPA: 3.95/4.00**

Sep. 2023 – Present
Tangerang, Indonesia

- **Honors:** Dean's List 2025, School of Computer Science
- **Coursework:** Natural Language Processing, Computer Vision, Cloud Infrastructures
- **Research:** Authored a **Scopus-indexed** publication on sentiment dynamics in Indonesian disaster tweets using **IndoBERT** at ICAICTA 2025; developed **ROBIN**, a benchmark for evaluating LLM robustness under Indonesian code-mixing

Korea University

International Visiting Student

Feb. 2026 – Jun. 2026
Seoul, South Korea

- **Coursework:** Deep Learning, Digital Logic Design, Computer Programming

SKILLS

Languages : Python, TypeScript, JavaScript, PHP, SQL (PostgreSQL, MySQL), HTML/CSS, C/C++, Java

Frameworks : Next.js, React.js, FastAPI, Flask, Laravel, Livewire

AI/ML : PyTorch, HuggingFace, scikit-learn, NumPy, Pandas, RAG, pgvector, ChromaDB

Tools : Git, Docker, Supabase, DigitalOcean, Figma, Adobe Premiere Pro