TIMOTHY NICO

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I'm Timothy Nico, a final-year student at Petra Christian University, focusing on Artificial Intelligence (AI) and Web Development. I work with Python and libraries such as TensorFlow, Transformers, and PyTorch for machine learning, as well as Pandas, NumPy, and Matplotlib for data analysis. I also build web applications using Laravel, JavaScript, Tailwind CSS, and SQL for database management. I'm currently seeking job, internship, or other professional opportunities.

Education Level

National Taiwan University - **Taipei, Taiwan**　　　　　　　　　　　　　　　　　　　　Aug 2024 – Dec 2024

Visiting Student, 4.23 / 4.30

- **Achievement:** IISMA Awardee 2024 at NTU Taiwan

Universitas Kristen Petra - **Surabaya, Indonesia**　　　　　　　　　　　　　　　　　Aug 2022 - Present

Bachelor of Informatics, 3.96 / 4.00

- **Achievement:** The Top 10% Freshman of 2022 With Outstanding Academic Achievement
- **Activities:** IT OpenHouse 2024, IT PEMIRA 2024, Material Division BLC 2024, Activity Division BEACON 2023, PERAN Division WGG 2023, Class Booth Coordinator Pekan Aplikasi Kreatif Pancasila 2023
- **Relevant courses**: Applied Artificial Intelligence, Deep Learning, IT Project Management, Web Technologies, Database, Programming

Internship Experience

Information, Communication, and Technology Intern　　　　　　　　　　　　　　　　Jan 2025 – Feb 2025

GMS Church

- Integrated Google Gemini API and Text Embedding API to implement an AI chatbot capable of answering questions accurately using Retrieval-Augmented Generation (RAG) based on a knowledge database.
- Developed a AI chatbot's knowledge database system using Laravel, React, and Role Based Access Control for 200+ QnA pair.
- Managed Cekat.ai knowledge database and profiling for a chatbot to answer questions, send related pdf, and transferring to human agent .

Skills

- **Programming-related**: Python, TensorFlow, PyTorch, Pandas, Numpy, Matplotlib JavaScript, Laravel, Tailwind CSS, SQL
- **Soft Skills**: Communication, time management, decision making, team collaboration, critical thinking
- **Additional skills**: Excel, Word, Canva, Medibang Paint, Photography, Videography
- **Languages**: Indonesian, English (DET 140/160, Petra EPT 643), Chinese (NTU General Chinese Course (I), UB Elementary Chinese)

Projects

AI-powered Chess Trainer　　　　　　　　　　　　　　　　　　　　　　　　　　　Apr 2025 – Jun 2025

LLM with external tools, speech-to-text, text-to-speech

- Integrated Gemini AI with the Stockfish engine to develop a dynamic chess trainer agent that analyzes the current board position and allows users to ask questions about the best moves and strategies in real time.
- Integrated speech-to-text and text-to-speech to the LLM for real time voice communication.

RAG Based voicebot with speaker identification for role based access control　　Apr 2025 – Jun 2025

RAG LLM, speech-to-text, text-to-speech

- Developed a voicebot using Llama 3 and Retrieval-Augmented Generation integrated with speech-to-text and text-to-speech for real time voice communication.
- Implemented speaker identification to enable role-based access control, allowing the system to recognize individual users and restrict or personalize LLM's responses based on their and identity.

Project Manager for GYB Church Information System Website　　　　　　　　　　Feb 2025 – Jun 2025

Project management, Laravel

- Translated client needs into clear technical tasks for the development team, ensuring smooth communication between client and developers.
- Developed user and admin websites for information and content management using Laravel and also integrated the user page with Instagram Graph API for automatic feeds display.

Dog Breed Detection using YOLOv8　　　　　　　　　　　　　　　　　　　　　　Apr 2025

Object detection, computer vision

- Developed a computer vision project that performs dog breed detection using YOLOv8, capable of identifying multiple dogs in a single image. The model was trained to classify 58 different dog breeds and achieved an accuracy of 83%.

Swarm Intelligence for Optimizing Goods Delivery Schedule　　　　　　　　　　　　　　Feb 2024 – Jun 2024
Artificial Intelligence

- Developed a solution to optimize the scheduling of cargo deliveries for a logistics company.
- Applied swarm intelligence optimization methods, including Ant Colony Optimization (ACO) and Particle Swarm Optimization (PSO), to address the problem.

Organizational / Committee Experience

OpenHouse 2024　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Jul 2024 – Aug 2024
IT Division
OpenHouse is an annual event organized by the Student Executive Board at Petra Christian University to showcase studentextracurricular activities and organizations.

- Developed websites for student extracurricular activities registration and payment using Laravel and Tailwind CSS for 1300+ users.
- Collaborated with teammates to develop the website using GitHub.

Pemilu Raya (PEMIRA) 2024　　　　　　　　　　　　　　　　　　　　　　　　Jan 2024 - Jun 2024
IT Division
Pemilu Raya (Pemira) is an annual event held by Petra Christian University as a platform to conduct elections for various leadership positions within the university, such as the Student Executive Board (BEM), Student Associations (HIMA), and other similar organizations.

- Developed websites for registration, voting, quick count for the chairmen of Student Executive Board, Student Activity Unit and Student Association (35 students) in my university using HTML, CSS, Javascript, PHP, and SQL.
- Maintained 800+ voting data and other document data using SQL

Pekan Aplikasi Kreatif Pancasila 2023　　　　　　　　　　　　　　　　　　　　　　　　Apr 2023
Class Booth Coordinator

- Made the booth concept, including the design and decorations of the booth using Canva.
- Made an educational board game about Kalimantan.
- Managed the budget, equipment, schedule during the event using Excel

Honors & Awards

- **Finalist International UI/UX competition by Hackfest UC** (2025)
- **Indonesian International Student Mobility Awards (IISMA) Awardee 2024 at National Taiwan University** (2024)
- **The Freshman of 2022 With Outstanding Academic Achievement** (2023)
- **3rd Winner Reverse Comic Strip Competition** (2020)

Certifications

- **Belajar Machine Learning Untuk Pemula** by Dicoding Indonesia (Aug 2024)
- **Elementary Chinese** by Universitas Brawijaya (Jun 2024)
- **Red Hat System Administration I** by Red Hat (Mar 2024)
- **Intro to Data Analytics** by RevoU (Jan 2024)

Volunteering

GMS Church　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Aug 2023 - Present
Live Production

- Recorded the weekly services and streaming for Indonesian, English, Chinese, and Adjusted camera and other technical devices,
- including ISO and White Balance to ensure the best quality of images.

Scratch Your Potential　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Apr 2023
Module Coordinator

- Introduced 84 elementary school students to programming through Scratch.
- Created instructional modules for the programming material.
- Designed the modules to be engaging and easily understandable for the students