

GIOVAN CHRISTOFFEL SIHOMBING

Software Engineering and AI

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Professional Summary

Computer Engineering graduate with experience in applied AI, iOS/macOS development, and backend engineering. Builds data preparation and model-training pipelines, integrates AI into applications, and coordinates technical delivery across research and team projects.

Education and Training

Universitas Indonesia – B.Eng. in Computer Engineering, GPA 3.67/4.00 Aug 2022 – Aug 2026
AEON 1% Club Scholarship recipient (2024, 2025).

Apple Developer Academy @ UC – Learner Feb 2026 – Present
User research, interface design, and app development; currently working on a fifth team project.

Selected Experience

Assistant Researcher (Part-time)

Monash University, Indonesia Campus

May 2026 – Present

- Develop Python and Google Cloud Storage workflows for chest X-ray dataset curation, DICOM preprocessing, image-report pairing, and multi-source metadata harmonization; contribute to JAX/Flax NNX baseline/domain-shift experiments on TBX11K/CXR-RAIT; run a fixed-split 470-image Google Cloud TPU reconstruction pilot; and build distilled CheXAgent vision-language inference tooling for TB-Xdar via Replicate/Cog, supporting DICOM inputs and clinician-reviewed reporting.

AI Engineer Intern

Tripleize Co., Ltd.

Minato-ku, Japan

Feb 2026

- Investigated mathematical image analysis and segmentation models for food plating assessment; documented approaches and limitations in an internship report.

Laboratory Assistant / Laboratory Coordinator

Universitas Indonesia

Aug 2023 – Jan 2026

- Coordinated approximately 12 assistants and course administration; built an e-library still in use and administered Proxmox servers.

Selected Projects

Federated Learning for Chest X-Ray Classification – Individual Thesis, Aug 2025 – May 2026

- Compared five frameworks in simulation; deployed FedBioMed across five devices for 30 FedAvg/FedProx runs across three resolutions and five seeds. No clinical validation is claimed.

AniMagic (Jul 2026) and **Lawtionary** (Aug 2026 – Sep 2026) – iOS/macOS Team Prototypes

- AniMagic: trained on 840,000 sketches, achieving 85.14% overall 49-class accuracy on held-out Quick Draw data, including *other*; integrated Core ML inference.
- Lawtionary: built local Qwen/MLX and hybrid retrieval workflows for user-reviewed legal drafts; September corpus: 2,982 term groups and 2,589 selected concepts.

eVoting Pemira FTUI – Lead Backend Engineer, 2024

- Built the Node.js/PostgreSQL backend supporting more than 2,700 voters, with Redis, JWT authentication, logging, and Docker deployment.

Technical Skills

Python, Swift/SwiftUI, Core ML, PyTorch, SQL, Node.js, PostgreSQL, Docker, Linux, Git.

Leadership and Languages

Vice President, EXERCISE FTUI (2024–2025): Coordinated six technical projects and seven workshops.
Indonesian (Native) | English (Professional) | Japanese (Conversational; JLPT N3, 2025).