MAULANA SENO AJI YUDHANTARA

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WORKING EXPERIENCE

Community Partnership Program (PKM) 2025, Bandung   Mar 2025 – Present

Lead Developer & Researcher

- Led the end-to-end development of a Solar System educational app leveraging Mixed Reality (MR) for the Meta Quest 3, creating an innovative learning solution for elementary students funded by Kemendiktisaintek.
- Spearheaded the design and implementation of an innovative multiplayer feature, enabling real-time interaction and collaboration between students and teachers in a shared immersive space.
- Engineered the integration of 3D digital assets (planets, sun) into a real-world classroom environment to significantly boost student interaction and comprehension.

Hetra Teknologi Indonesia, Bandung   Apr 2025 – Present

Project Lead & Machine Learning Engineer

- Led a team through an intensive refactoring and debugging process for the 'KonselQ' mental health mobile chatbot, built with Flutter.
- Architected and planned the fine-tuning process for a Large Language Model (Gemma) using a specialized mental health dataset to build the core intelligence of the application.
- Directed the application's technical architecture, ensured UI/UX implementation aligned with Figma designs, and managed the team's entire workflow using Git/GitHub.

Digital Image Processing Laboratory - ITENAS, Bandung   Feb 2025 – Jun 2025

Laboratory Teaching Assistant

- Mentored 42 students in a practical lab class, enhancing their understanding of Digital Image Processing concepts using Python, OpenCV, Scikit-image, NumPy, and Matplotlib.
- Guided 16 teams in completing their final projects, achieving a 95% success rate in implementing complex algorithms like edge detection and image segmentation.
- Resolved over 15 code debugging and troubleshooting sessions, helping students overcome technical challenges and accelerating their project completion time by up to 20%.

Object-Oriented Programming Laboratory - ITENAS, Bandung   Feb 2025 – Jun 2025

Laboratory Teaching Assistant

- Taught fundamental OOP concepts (Inheritance, Polymorphism) to 40 students through weekly mentoring, resulting in 90% of students successfully applying core principles in their final projects.
- Provided technical assistance and conducted code reviews for 15 teams, significantly improving code quality, efficiency, and reducing average task completion time.
- Authored supplementary lab materials on Java OOP best practices, which were adopted as the official laboratory guide to standardize learning and prevent common errors.

IoT Project: PADAMIN (Intelligent Fire Extinguishing Robot), Bandung   Sep 2024 – Jan 2025

Team Lead

- Led a team of 7 in the design and development of an IoT-based fire extinguishing robot, successfully implementing a real-time fire detection model using YOLOv8 with 87% accuracy.
- Directed the hardware integration and personally managed all electrical systems, including ESP32, ultrasonic sensors, high power DC motors, and a water pump system to create a responsive autonomous vehicle.
- Architected and developed a multi-platform (Desktop, Web, Mobile) monitoring and control system, enabling live-stream video and remote manual intervention.

EDUCATION

Institut Teknologi Nasional Bandung, Bandung   Sep 2022 – Present
Bachelor of Informatics
GPA 3.58 of 4.00

ACHIEVEMENTS

Sustainable Innovations Essay Competition (SINEC) 2025, Yogyakarta   Aug 2025
3rd Place & "Most Implementative Idea" Award.

National Scientific Writing Competition (LINTAS ORMAWA) 2024, Malang   Nov 2024
2nd Place (Health Sub-theme).

ORGANIZATION & LEADERSHIP ACTIVITIES

ICT & Cybersecurity Laboratory - ITENAS, Bandung   Apr 2025 - Present
Laboratory Staff (Committee Member & Prompt Engineer)

- Appointed to lead and direct laboratory presentation events for external stakeholders, including government officials, industry partners, and international delegations. Held full responsibility for the event flow, material preparation, and the delivery of technical presentations in both Indonesian and English to demonstrate research capabilities and establish potential partnerships.
- Designed, developed, and optimized prompts for various generative AI models as the laboratory's lead Prompt Engineer.
- Actively contributed to high-impact projects for national competitions and grant proposals, and was directly involved in the Intellectual Property Rights (HKI) registration process.

CERTIFICATIONS

Machine Learning Engineer Scholarship Program Completion Certificate   Jul 2025
Coding Camp 2025 Powered by DBS Foundation
Number: CC25/GRAD/XXV-07/MC117D5Y1789

Copyright Certificate - BacClass Computer Program   Jul 2025
Directorate General of Intellectual Property (DJKI), Ministry of Law and Human Rights RI
Number: 000934688

LANGUAGES AND SKILLS

- Bahasa Indonesia (Native), English (Professional Working Proficiency).
- Machine Learning (Deep Learning, NLP, Computer Vision), Data Science (ETL, Data Analysis Pipeline), Python, SQL, Java, C#, IoT, Mobile Development, Web Development.
- Leadership, Team Mentoring, Cross-functional Collaboration, Technical Communication, Project   Management Methodologies (Agile/Scrum), Problem Solving, Strategic Planning, Risk Management.