CANDIKA DWI HANDARU

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Hi, I'm Candika Dwi Handaru, a sixth-semester Electronics and Instrumentation student at Universitas Gadjah Mada. I'm passionate about technology, with interests in AI, Cloud Computing, Software, Hardware, and System Architecture. With a solid academic background and hands-on project experience, I'm eager to contribute innovative solutions and bring fresh, reliable results to every challenge.

Education

Gadjah Mada University – **Yogyakarta, Indonesia**   Expected 2026

Undergraduate Electronics and Instrumentation, 3.60/4.00

- Actuator System Lab Assistant (2024), becomes a practicum lecturer assistant in carrying out and assisting practitioners during the practicum.
- Module Lab Assistant (2024), Responsible to designed a beginner-friendly guide to help students get started with Linux

Work Experiences

Badan Riset dan Inovasi Nasional – **Yogyakarta**   Feb 2025 - Jun 2025

Software Engineer

The National Research and Innovation Agency is a cabinet-level agency of the Indonesian government, formed in 2019

- Designed scalable application architecture and backend using Next.js
- Built and maintained relational data models with PostgreSQL
- Responsible managing Docker Compose to development and deployment

Jogja-NETPAC Asian Film Festival - **Yogyakarta, Indonesia**   Nov 2024 - Dec 2024

Volunteer Program Registration

The Biggest Film Market & Exhibition in Indonesia

- Managed and maintained merchandise inventory data using spreadsheets for accurate tracking and reporting
- Facilitated on-site registration and check-in process, enhancing overall guest experience
- Worked collaboratively with a dynamic team in a high-paced festival environment
- Supported logistical operations during Indonesia's biggest film market & exhibition

Bangkit Academy led by Google, Tokopedia, Gojek,&Traveloka   Sep 2024 - Dec 2024

Cloud Computing

Bangkit is a Google-led academy designed to produce high-caliber tech talents for Indonesia

- Learn and train soft skills to become competent resources ready to lead
- Learn and be trained in the hard skills of an IT developer.
- Hands-on experience in software and cloud implementation projects

Pionir Gadjah Mada 2024 - **Universitas Gadjah Mada**   Mar 2024 - Aug 2024

Staff of Equipment & Support

- Assisting in coordinating equipment logistics for various activities
- Collaborating with a 30-member team to prepare and distribute materials
- Managing faculty with 400 new student to ensure all items were available on time
- Communicating effectively to solve on-the-spot issues during the event

Usher

- Directing attendee flow and ensuring smooth movement throughout the venue
- Providing clear information and support to participants
- Helping maintain order and a positive atmosphere during the event
- Assisted in welcoming and guiding 10,000 new Gadjah Mada students

VEX Asia-Pacific Robotics   Jan 2024

Volunteer Registration and Robot Site Recovery

The VEX Robotics competition prepares students to become future innovators with 95% of participants reporting an increased interest in STEM subject areas

- Handled remote participant registration, ensuring smooth coordination for international attendees

- Led site recovery efforts, restoring the competition arena and inspecting robots for safety and readiness
- Enhanced problem-solving and teamwork skills in a fast-paced, high-pressure environment

Organisational Experience

Elins Research Club - Sleman   - Present

Aeromodeling and Web Development

Elins Research Club is an active electronics and instrumentation student community that accommodates its members in conducting research and technology development.

- Having experience with Arduino, ESP32, Sensor ,and Actuator
- Having experience with GO, Python, Javascript(next, react, express) for Web Development
- Computer vision with transfer learning

Projects

SiPuber – BRIN   Feb 2025 - Jun 2025

Backend Engineer

SiPuber (Sistem dan Instrumen Pemantauan Pencemaran Udara Bergerak), which serves to monitor urban air quality in real-time

- Designed scalable application architecture and backend using Next.js
- Built and maintained relational data models with PostgreSQL
- Responsible managing Docker Compose to development and deployment

CiMon (Chili Monitoring) – Bangkit Academy   Sep 2024 - Dec 2024

Backend Engineer and Cloud Engineer

CiMon is an application designed to assist chili farmers in detecting diseases in their plants quickly and accurately using image recognition technology. By leveraging a smartphone camera, users can capture photos of diseased chili plant leaves.

- Lead the backend and develop backend for the application
- Creating an architecture for CI/CD pipeline and implement it

Selebrasi Interaktif (Cakra Sankhara) – Pionir Gadjah Mada   Mar 2024 - Aug 2024

Lead of Mechanism

Cakra Sankhara is featuring a collage of GAMADA (Gadjah Mada Muda) during PIONIR University which are attractively designed

- Participate in regular meetings and evaluate the project
- Creating a mechanism system for the project and implement it

G-Connect Project Indonesia - Universitas Gadjah Mada   Sep 2024 - Dec 2024

Hardware Programmer

UGM Computer Science research project providing mobile network coverage to remote Indonesian areas using a gas balloon-based transceiver, inspired by Google Loon technology.

- Participate in regular meetings and evaluation of hardware development work
- Creating an early warning system to detect floods using several sensors

Matching Fund 2023 - PT Asuransi Tugu Pratama Indonesia Tbk   Aug 2023 - Jan 2024

Data Visualization

Matching Fund is a program by Ministry of Education, Culture, Research, and Technology providing fund for any research support to a higher education institution in Indonesia.

- Developed an intuitive visualization interface with charts, graphs, and other visuals to display machine learning predictions
- Simplified complex data, helping the team gain insights into potential future scenarios and make more informed decisions
- Improved understanding of prediction models and their impact on decision-making

Skills, Achievements & Other Experience

- **Technical Skill: Python, Go, C++, React, Next.js, Express, YOLO, CNN, GCP, Git/GitHub, PostgreSQL, MySQL, Microcontrollers, Sensors, Actuators, Node-red, Dashboard Development, Google Spreadsheet**
- **Activities: System Architecture Design, Automation, Artificial Intelligence, Cloud Computing, Software & Hardware Development, Version Control, Problem Solving, Leadership**