ALDAN PRAYOGI

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(Bojonegoro, Jawa Timur, 62119)

A passionate professional with strong collaboration skills and experience working in cross-disciplinary teams. Strong listening abilities support a deep understanding of diverse team perspectives and needs. Believes that effective teamwork and clear communication are essential to achieving outstanding results, with a commitment to contributing and continuously learning to reach shared goals.

Work Experiences

Toyota Motor Manufacturing Indonesia - **Jakarta, Indonesia**   Aug 2024 - Aug 2025
Internship

- Built an object detection pipeline to solve ergonomic problem using YOLOv8 to classify 8 types of automotive components and automate image annotation, reducing dataset labeling time by over 70%
- Developed visual tools to count and verify up to 100+ detected objects per image, achieving 98.87% bounding box validation accuracy and enabling seamless conversion to CSV and YOLO formats
- Successfully improved model detection performance from an F1 Score of 0.07 (confidence 0.083) to an F1 Score of 0.98 (confidence 0.725), achieving a prediction completeness accuracy of 98.87%.

Research Egrek Digital - **Sepuluh Nopember Institut Of Technology, Surabaya Indonesia**   Mar 2024 - Jul 2024
Researcher
Egrek digital is a research on palm oil harvesting efficiency to increase palm oil export substitution

- Programmed over 3 image processing scripts using Python and OpenCV
- Developed an Android image classification app using Flutter with over 90% classification accuracy across 2+ object categories
- Integrated Raspberry Pi in 3 prototyping projects, achieving stable data transmission for real-time monitoring
- Wired and assembled more than 5 electronic components across multiple prototypes, increasing hardware assembly efficiency by 30%

Hysage - **Sepuluh Nopember Institut Of Technology, Surabaya Indonesia**   Aug 2023 - Dec 2023
Project Management
HySage is an innovative agriculture company that integrates hydroponics and IoT to enable smart, sustainable, and efficient urban farming.

- Designed electrical wiring for electronic components to support automation and sensor integration
- Developed a real-time monitoring website for displaying sensor data such as pH, TDS, and temperature
- Created a product promotion website to showcase project features and improve user engagement
- Integrated multiple sensors (ultrasonic, pH, TDS, temperature) into a functional web-based Laravel monitoring system

Elmech Technology - **Surabaya Indonesia**   Jan 2022 - Aug 2022
Part Time
A company specializing in Automation Technology, offering IoT, electronics, instrumentation, and AI solutions through projects, training, and PCB printing services.

- Designed 2 custom Printed Circuit Boards (PCBs), increasing hardware modularity and reducing wiring complexity by 30% in automation systems
- Assembled and wired over 50 electronic components for 2 machine prototypes based on detailed engineering schematics
- Programmed 2 Arduino microcontrollers in C++ to control 4 types of actuators and sensors
- Developed a real-time web monitoring interface that reduced manual inspection time by 40% and enhanced machine data visibility Implemented object detection using OpenCV and Python, achieving 95% detection accuracy to support advanced machine vision functionality

Education Level

Institut Teknologi Sepuluh Nopember - **Surabaya Indonesia**   Aug 2022 - Jun 2026 (Expected)
Diploma in Automation Electrical Engineering, 3.70/4.00

Organisational Experience

Cyber Physical Industrial Robotics and Automation Laboratory, Institut Teknologi Sepuluh Nopember   Sep 2023 - Mar 2024
Treasurer

- Managed laboratory finances to ensure timely reporting and transparent fund usage across all activities and purchases
- Monitored expenditures to prevent overspending, resulting in a 100% compliance rate with financial regulations
- Documented all transactions and budget usage, providing clear records for audits and future financial planning

Student Association of the Department of Automation Electrical Engineering - DTEO HardSkill Training   Feb 2024 – Aug 2024

Professional Scientific Staff

- Structured Python curriculum to ensure logical progression and clear understanding of core programming concepts
- Developed comprehensive training materials covering data structures, algorithms, and programming paradigms
- Delivered engaging, hands-on instruction to enhance participants' practical skills and boost programming confidence
- Assessed participants' understanding to tailor sessions and improve overall learning outcomes

Skills, Achievements & Other Experience

Certificate (2019) ✓ : BNSP - Simple Building Electrical Instalation

Certificate (2020) ✓ : BNSP - PLC-Based Control Installation Technician

Certificate (2025) ✓ : PT Yokogawa Indonesia - Master Integrated Automation from sensor to Smart Decision DCS

Projects (2022): Elmech Technology - Monitoring 3 phase motor

Projects (2023): Project Based Learning - Hydroponics management system

Projects (2023): Project Based Learning - Line tracer analog

Projects (2024): BPDPKS - Egrek Digital

Projects (2025): TMMIN - Quality Inspection With Image Processing

Training (2025): Training Electrical Pneumatic with Festo FluidSim-P

Training (2025) ✓ : Training PLC Siemens S7-300 314IFM and simulation with Factory IO

Hard Skills: Web Development (Laravel),Python Programming, 3D Designer, Intrumentation and Control Engineer, Microsoft Office, Design PCB, Electrical Wiring, Flutter Android Development

Soft Skills: Collaboration & Teamwork, Toyota Production System (TPS), Adaptability, Attention to Detail, Critical Thinking, Curiosity & Willingness to Learn