# AHMAD ZAKI FIRDAUS

#### **SUMMARY**

Fresh graduate with a strong interest in Artificial Intelligence, particularly in Computer Vision, Object Detection, and Large Language Models (LLM). Experienced in developing image classification and object detection models using TensorFlow and exploring LLM and Retrieval-Augmented Generation (RAG) with LangChain. Highly motivated to learn, with strong analytical and problem-solving skills.

#### **EDUCATION**

#### UNIVERSITAS GADJAH MADA

2021 - 2025

Majoring in Electronics and Instrumentation

- GPA: 3.81/4.00
- Thesis: Automatic Waste Classification System Real-Time Object Detection-Based on Single Board Computer Using YOLO Algorithm.

#### ORGANIZATIONAL EXPERIENCES

# HIMPUNAN MAHASISWA ELEKTRONIKA DAN INSTRUMENTASI

2022 - 2024

- Staff Kelompok Studi Elins
  - Conducting training and workshops in the field of electronics and programming.
  - Led hands-on lab activities to enhance practical skills.

## ELINS RESEARCH CLUB UGM

2022 - 2023

#### Staff of Aeromodelling division - Programmer

- Conduct research with new technologies.
- Develop an Early Warning System to detect landslides and floods in disaster-prone areas.

#### **TEAMWORK EXPERIENCES**

# GADJAH MADA FLYING OBJECT RESEARCH CENTER

2022 - 2023

#### **Hardware Programmer**

- Developed UAV Flight Controllers using Teensy microcontrollers with C++.
- Optimized autopilot systems for Quadrotors, Fixed-wing, and Hybrid VTOL Plane for UAVs.
- Achievements: 1st Place KRTI 2023 for Technology Development, Flight Controller Development.

### **BANGKIT ACADEMY**

2023 - 2024

# **Machine Learning Cohort/Team Leader**

- Proficient in Machine Learning (classification, clustering) and Deep Learning (image processing, object detection).
- Developed an Android app for real-time driver monitoring using SSD MobileNetV2 to detect drowsiness.
- Led a capstone project team (ML engineers, cloud engineers, mobile developer), ensuring successful collaboration and execution.

ZONA FARM 2024 - Present

AI Engineer

• Developed an classification system to monitor chicken health, enhancing accuracy in poultry farming.

# **SKILLS**

- **Technical Skills:** Artificial Intelligence (AI), Object Detection, Deep Learning, Computer Vision, Machine Learning, LLM, Internet of Things (IoT), Microcontroller.
- **Programming and Tools:** C++, Python, JavaScript, TypeScript, Git, Scikit Learn, PyTorch, TensorFlow, Keras, OpenCV, YOLO, LangChain, OpenAI, Ollama, HuggingFace, Arduino, Raspberry Pi.
- **Certification** (2024): TensorFlow Developer Certificate
- **Certification** ⊙ (2023): Machine Learning
- **Certification** *⊙* (2023): Deep Learning
- **Certification** ⊙ (2023): Computer Vision
- Certification ∅ (2023): Data and Deployment