



Muhammad Yusuf Kamal

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Experienced as a Software Engineer, Mobile Developer, AI Practitioner, Content Manager, IoT, Robotics and AI Trainer, Robotics Mentor, as well as Multimedia and Embedded Systems Teacher. A lifelong trainer and mentor, having taught over 100 individuals in IoT and Robotics using Python and C++, with certification from OpenCV University.

PENGALAMAN PROFESIONAL

IoT, Robotics & AI Trainer

June 2024 – Now

ID Networkers - Jakarta barat

- Implemented a hands-on IoT and AI curriculum tailored for high school students.
- Mentored participant to build smart agriculture, home automation, and health-monitoring systems.
- Increased adoption of IoT-based projects in participating schools and institutions.
- Conducted semester-based technical assessments and personal mentoring sessions.
- Led students to compete and win in local and national robotics competitions.

Embedded Systems Instructor

June 2024 – Now

IDN Boarding School - Solo, Jawa Tengah

- Instructed students in embedded systems programming using Microbit.
- Led development of real-world tools like temperature sensors and data loggers.
- Integrated embedded projects with IoT dashboards using Blynk and Firebase.
- Mentored capstone projects that addressed actual school or community needs.
- Promoted deep understanding of hardware-software integration.

Coach Robotic Competition

December 2024

Artificial Intelligence Challenge and Exchange Series (1st Place International) - Beijing, China

- Selected as team coach representing Indonesia at international robotics competition in Beijing.
- Mentored students in designing and programming advanced autonomous robot solutions.
- Facilitated cross-cultural collaboration and communication during international exchange activities.
- Secured 3rd place internationally among competitors from 5+ countries.
- Strengthened students' global mindset and confidence through high-level competition exposure.

Coach Robotic Competition

October 2024

Rotary Youth Super Competition 2024 (1st & 2nd Place International) - IIUM, Kuala Lumpur

- Coached multiple teams across Line Follower, Sumo, and Maze Solving categories.
- Led hardware and algorithm development tailored for each competition style.
- Conducted weekly trials with performance tracking and debugging sessions.
- Fostered strong teamwork and mental readiness among all participants.

Coach Robotic Line Follower Competition

October 2024

PISIN Line Follower Competition (1st Place National) - Semarang. West Java

- Led content strategy for tech-based digital branding and educational campaigns.
- Oversaw production of educational videos, tutorials, and event documentation.
- Managed team of writers and designers to produce consistent brand voice.
- Secured 1st place against national-level university competitors.

Coach Robotic Competition

August 2024

World Robot Contest 2024 Malaysia (3rd Place International) - Solo, Jawa Tengah

- Trained students for international maze-solving challenges using autonomous robots.
- Developed robot with adaptive shortest-path algorithm and obstacle avoidance.
- Managed pre-departure simulations and testing for foreign arena adaptation.
- Guided team through presentation and technical documentation requirements.
- Secured 3rd place internationally among competitors from 5 countries.

Coach IoT Creative Innovation

August 2024

World Robot Olympiad Future Innovators (2nd Place National) - ITS Surabaya. West java

- Coached junior high students in research-based robotics innovation.
- Guided prototype creation using AI and IoT integration for real-world issues.
- Trained students in English presentations and scientific explanation.

- Enhanced students' confidence through live pitching and Q&A preparation.
- Achieved 2nd place at national level among top schools.

IoT and Robotics Trainer

July 2024

IDN Boarding School - Solo, Jawa Tengah

- Delivered specialized bootcamps for 60 teachers and lecturers on IoT fundamentals and project development using microcontrollers.
- Taught advanced IoT concepts including MQTT, Blynk communication and real-time data integration with Firebase and Blynk.
- Guided participants in developing classroom-ready IoT learning kits for STEM education.
- Acted as keynote trainer in national-level professional teacher development events.
- Increased adoption of IoT-based projects in participating schools and institutions.

IoT Robotics & AI Trainer

November 2023

SD, SMP, SMK Cinta Kasih Tzu Chi - **Jakarta Barat**

- Mentored Teacher across elementary, junior, and vocational levels with age-appropriate IoT and robotics curriculum, fostering interest and foundational skills in technology from an early age.
- Created tiered learning paths and activity-based modules to match different levels of cognitive and technical abilities.
- Established and coordinated a multi-level robotics club, facilitating peer mentoring between older and younger students.
- Conducted internal tech exhibitions to showcase student projects and build a culture of innovation within the school environment.

IoT Robotics & AI Trainer

October 2023

SMK BPPI Baleendah Bandung - **Bogor, Jawa Barat**

- Developed comprehensive IoT and AI training modules for vocational high school students, incorporating tools such as Arduino, ESP8266, and Teachable Machine for AI vision.
- Led project-based learning sessions where students created real-world applications like smart farming systems and home automation.
- Helped the school initiate an AI and robotics lab that serves as a hub for innovation and inter-departmental collaboration.

PENDIDIKAN

D4 (Sarjana Terapan) - Ilmu Komputer

Juli 2023 – Sekarang

Politeknik IDN – **Bogor, Jawa Barat**

- IPK sementara 3,68
- Fokus pada: Software Engineering, IoT, dan Cloud Computing
- Menjabat sebagai Ketua Badan Eksekutif Mahasiswa
- Membuat Aplikasi perbankan menggunakan Figma, Flutter dan Laravel

ORGANISASI / KEGIATAN

Youth Science and Technology Elite Gathering – Hong Kong I-U-R Collaboration

2025

World Robot Olympiad – Institut Teknologi Sepuluh November

2024

Anggota GDSC – Universitas Widyatama

2023 – Sekarang

SERTIFIKASI

Robotic Fundamental – NVIDIA

2025

Web Development – Coding Studio

2025

Python – OpenCV University

2025

KEMAMPUAN

Hard-skill	Javascript, Flutter, Laravel, Python, C++, Mikrotik, AWS, CCNA
Soft-skill	Berjiwa pemimpin, kemampuan mengambil keputusan, dan time management yang baik
Bahasa Indonesia	Fasih
Bahasa Inggris	Cukup