Muhammad Yusuf Kamal

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1 Years of Experience as a Software Engineer, Mobile Developer, AI enthusiasm, Content Manager, IoT and Robotics Technician, 2 years of experience as a 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 Python from OpenCV University.

WORK EXPERIENCE

IoT, Robotics & AI Mentor
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 .
- Mentored capstone projects that addressed actual school or community needs.
- Promoted deep understanding of hardware-software integration.

Software Engineer
June 2024 – Now

IDN Boardingschool - Solo, Jawa Tengah

- Document software development processes and provide technical support when needed.
- Design, develop, and implement software applications for educational and administrative purposes.
- Collaborate with teachers and staff to understand system requirements and translate them into functional solutions.
- Perform testing, debugging, and optimization to ensure high-quality and reliable software.
- Maintain existing applications and continuously improve their performance.

Coach Robotic Competition
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 1st place internationally among competitors from 5+ countries.
- Strengthened students' global mindset and confidence through high-level competition exposure.

Coach Robotic Competition
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
2024

PISIN Line Follower Competition (1st Place National) - UIN Semarang. West Java
- Successfully mentored and guided a student team in the Robotic Line Follower Competition
- Provided technical training, strategic planning, and problem-solving approaches to enhance team performance.
- Led the team to achieve **1st Place Winner**, demonstrating excellence in coaching, leadership, and robotics expertise.

Coach Robotic Competition
2024

World Robot Contest 2024 Malaysia (3rd Place International) - Kuala Lumpur, Malaysia
- 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
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
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
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.

EDUCATION

D4 (Bachelor of Applied Science) - Computer Science
Juli 2023 – Now

Politeknik IDN **–** Bogor, West Java

- Temporary GPA 3.9
- Focus on: Software Engineering, IoT, and Cloud Computing
- Serving as Chair of the Student Executive Board
- Develop an E-Learning application using Figma, React js, php and Laravel

ORGANIZATIONS/ACTIVITIES

Youth Science and Technology Elite Gathering – Hong Kong I-U-R Collaboration   *2024*
World Robot Olympiad – Institut Teknologi Sepuluh November   *2024*
Anggota GDSC – Universitas Widyatama   *2023 – Now*

CERTIFICATIONS

Robotic Fundamental – NVIDIA   *2025*
Web Development – Coding Studio   *2025*
Python – OpenCV University   *2025*

SKILLS

Hard-skill	Javascript, Flutter, Laravel, Python, C++, Arduino, CCNA, Thingkercad, Easyeda.
Soft-skill	Leadership qualities, decision-making skills, and good time management skills
Bahasa Indonesia	Fluent
Bahasa Inggris	Intermediate