

ZAKIA MAHBUB ABDULLAH

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AI/ML enthusiast and skilled programmer with proven experience in machine learning, computer vision, and innovative technology solutions. Adept at working in diverse environments, from startups to established organizations, with a focus on delivering impactful results in AI-driven applications.

WORK EXPERIENCE

Analytics, AI & ML Staff May 2024 - Present
Full Time

Sinar Mas Land, BSD, Tangerang

- Automated Road Damage Detection System – Developed a computer vision solution to detect and classify road damage (e.g., potholes) in real time, integrated with automated repair ticket generation. Successfully deployed in BSD Link (BSD area), enhancing urban infrastructure maintenance efficiency and response time.
- Developed classification systems for BigTrons material nomenclature.
- Developed OCR solutions for real-time data extraction, including reports for KTP/NPWP, finance documents, customer surveys, and more.
- Created error tracking systems for OCR issues related to KTP and NPWP.
- Led the development of automation AI models, including a media mass crawler and segmentation classification projects for various organizations.

AI ML Development & Testing Intern Nov 2023 - April 2024
Sinar Mas Land, BSD, Tangerang

- Designed, developed, and optimized machine learning algorithms, focusing on natural language processing, computer vision, and recommendation systems.
- Conducted thorough unit testing and performance testing to ensure accuracy, reliability, and scalability of AI/ML models.
- Deployed models into production environments and integrated them seamlessly with existing systems.
- Collaborated with cross-functional teams, effectively communicating findings to optimize model performance.

Transformation - Innovation Developer Intern Jul 2022 - Oct 2023
Sinar Mas Land, BSD, Tangerang

- Collaborated with other departments to create innovative web and app solutions.
- Built web and mobile applications using internal tools like Outsystems.
- Led the design and development of applications, focusing on migration and enhancement of existing systems.
- Integrated cutting-edge technologies, including computer vision, machine learning, and IoT, into web and mobile applications.

Data Analyst Intern Feb 2022 - Jul 2022
PT. Zona Edukasi Nusantara, Jakarta

- Compiled and maintained databases, performed data mining and cleansing for analysis.
- Analyzed and interpreted data for reports and visualized results in interactive dashboards.

Programmer Intern Feb 2021 - Apr 2021
LIPI, Bandung

- Developed object detection systems for autonomous vehicles using YOLO and computer vision techniques.

IT Engineer Intern Dec 2019 - Feb 2020
PT. Multi Fabrindo (Medco Group), Jakarta

- Developed air quality monitoring systems for employee safety using IoT and LabView.
- Integrated real-time monitoring with IoT technologies and achieved a 70% accuracy rate.

EDUCATION

Bachelor Degree in Computer Engineering, 3.86/4.00 Aug 2021 - Sept 2023
Telkom University, Bandung, Indonesia

- Participant, Cross Culture Program with Universiti Teknologi Petronas, impacting 20+ students from Indonesia and Malaysia.
- Virtual Short Course in Future Technology (AI, Image Processing, Robotics) by Telkom University and partner institutions.

Associate Degree in Instrumentation Technology, 3.75/4.00 Aug 2018 - Aug 2021
Gadjah Mada University, Yogyakarta, Indonesia

- Participant, Digital Image Processing, AI, and FinTech programs, certified by Asia University.
- Sakura Science Student Exchange Scholarship recipient, visiting Japan and collaborating with students from Singapore, Korea, Japan, Hong Kong, and Indonesia.

ORGANIZATIONAL EXPERIENCE

Programmer, KRTMI Division Jan 2020 - Feb 2021
Gadjah Mada Robotic Team (GMRT), Yogyakarta

Built and programmed robots for competitions, working with C/C++, Python, and Matlab for control systems.

Secretary Sahabat Beasiswa , Jakarta Moderated talk shows, organized event schedules, and managed proposals, permits, and invitations.	<i>Jan 2019 - Dec 2019</i>
Head of Mahasiswa Berprestasi (MAPRES) Department Penalaran Center Community (PCC) , Yogyakarta Organized training programs and supervised students in the MAPRES Academy.	<i>Sep 2018 - Dec 2020</i>
Science and Technology Development Staff International Association of Students in Agricultural and Related Sciences (IAAS) , Yogyakarta Analyzed agricultural problems using technology and planned development initiatives.	<i>Sep 2018 - Dec 2019</i>

SKILLS

- **Machine Learning:** Azure AI Services, scikit-learn, Custom Vision
- **Web Development:** HTML, CSS, JavaScript
- **Data Analysis:** Data mining, cleansing, visualization
- **Programming Languages:** Python, C/C++, Matlab

ACHIEVEMENTS & PROJECTS

Projects :

- Developed an **Autonomous Vehicle** with object detection (2021)
- Created an **earthquake detection project** for automated houses in earthquake-prone areas (2020)
- Improved a **line follower robot** project for gate tours during an international hackathon (2020)

Awards :

- Awardee of **Kontes Robot Indonesia (KRI)**, KRTMI (2020)
- Bronze Medal at the **International Festival Innovation on Green Technology (I-FINOG)** at Pahang University, Malaysia (2019)
- Semifinalist at the **National Software Development Competition Luxtrum XI** (2018)
- 2nd Runner Up in the **Creative Robot Category**, Robotic Day (2017)
- 2nd Runner Up in the **Creative Robot Category**, International Robotic Game (2016)