

# Muhammad Haykal Andana

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## SUMMARY

Fresh Graduate of Informatics Engineering from Universitas Muhammadiyah Jakarta with strong specialization in Artificial Intelligence, Data Engineering, and Robotic Process Automation (RPA). Experienced in developing large-scale applications, designing and implementing AI/ML models, building end-to-end data pipelines, and creating automation solutions to streamline business processes and support data-driven decision-making.

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## EDUCATION

**University of Muhammadiyah Jakarta | Informatics Engineering | GPA: 3.62/4.00** *Sep 2020 – August 2024*

**Area of Interest: Artificial Intelligence, Data Engineering, Robotic Process Automation**

**Achievements:**

- Passed Funding for Student Creativity Program in Community Service Scheme 2023
- Passing for Merdeka Belajar Kampus Merdeka (MBKM) Program in Certified Independent Study

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## EXPERIENCE

**Robotic Process Automation Engineer | PT. Jedi Global Teknologi**

*May 2025 - Now*

- Designed and implemented end-to-end RPA solutions using tools such as UiPath and Python scripting, resulting in a 40% reduction in manual processing time for repetitive business operations.
- Conducted process analysis and collaborated with stakeholders to identify automation opportunities, leading to the automation of 10+ business processes across departments.
- Optimized and maintained existing RPA workflows to improve efficiency and reduce exceptions, achieving a 25% improvement in bot reliability and success rate.
- Developed reusable automation components and maintained documentation to ensure scalability and cross-team adoption, contributing to a 15% reduction in development time for new automation projects.
- Worked closely with cross-functional teams including IT, Operations, and Compliance to align RPA initiatives with organizational goals, resulting in increased process standardization and governance adherence.

**Chief Technology Officer | DevFlow Technologies**

*Feb 2025 - Now*

- Led the technology vision and strategy at DevFlow Technologies, ensuring all solutions aligned with client needs and company goals, resulting in a 40% increase in project delivery speed and client satisfaction.
- Built and managed a high-performing engineering team, fostering a collaborative culture focused on innovation in AI, Data Engineering, and Robotic Process Automation.
- Architected and deployed scalable software solutions and automation frameworks that reduced client operational overhead by up to 60% through tailored RPA and AI integration.
- Oversaw the end-to-end lifecycle of multiple tech projects across various industries, from requirement gathering to deployment and maintenance, delivering over 20+ successful implementations.
- Drove strategic partnerships and client engagements by translating complex technical solutions into clear business value, contributing to revenue growth and repeat business.
- Established technical standards, code quality guidelines, and DevOps practices to maintain system stability, scalability, and security across all deployments.

**Artificial Intelligence Engineer | Asana, Inc*****Aug 2024 – Apr 2025***

- Designed, developed, and deployed AI/ML models for real-world applications, resulting in a 35% improvement in predictive accuracy and enhanced business decision-making across key use cases.
- Led end-to-end machine learning workflows, from data collection and preprocessing to model training, evaluation, and deployment using tools such as Python, TensorFlow, Scikit-learn, and PyTorch.
- Collaborated with cross-functional teams to identify AI integration opportunities, delivering solutions such as automated document processing, recommendation systems, and intelligent chatbots, which improved operational efficiency by up to 50%.
- Conducted in-depth research and experimentation with NLP, computer vision, and deep learning techniques to solve domain-specific problems, contributing to continuous model optimization and innovation.
- Deployed models to production using RESTful APIs and containerized environments (Docker/Kubernetes), ensuring scalability, reliability, and seamless integration with existing systems.
- Implemented monitoring, evaluation, and model retraining pipelines to maintain accuracy over time, resulting in a 20% reduction in model drift and improved long-term performance.

**Python Backend Engineer | Djalaludin Pane Foundation*****May 2024 – Aug 2024***

- Developed and maintained robust backend systems using Python (Flask, FastAPI, Django), resulting in a 30% improvement in API response time and system reliability.
- Designed and implemented scalable RESTful APIs to support web and mobile applications, enabling seamless data exchange and real-time processing for thousands of users.
- Integrated third-party services and internal systems (e.g., OAuth2, payment gateways, external APIs) to automate workflows and support business operations.
- Optimized database queries and schema (using PostgreSQL, MySQL, MongoDB) to handle large volumes of data efficiently, leading to a 25% reduction in query latency.
- Collaborated with frontend, DevOps, and QA teams in an Agile environment to ensure smooth development cycles, resulting in faster sprint velocity and fewer bugs in production.
- Wrote unit and integration tests using Pytest and Postman, achieving 85%+ code coverage and ensuring backend stability across all deployments.
- Deployed applications using Docker, GitLab CI/CD, and cloud platforms (e.g., AWS, GCP) to support continuous delivery and high system uptime.

**IT & Data Analyst Engineer Internship | Djalaludin Pane Foundation*****Feb 2024 – May 2024***

- Assisted in collecting, cleaning, and analyzing large datasets using tools like Excel, SQL, and Python (Pandas, NumPy) to generate insights that supported business reporting and operational decisions.
- Developed interactive dashboards and visualizations using Power BI / Tableau, resulting in a 20% improvement in data accessibility for non-technical stakeholders.
- Supported the IT team in maintaining system documentation, troubleshooting technical issues, and performing basic system administration tasks to ensure smooth daily operations.
- Conducted ad-hoc data analysis for various departments, identifying trends and anomalies that contributed to process optimization and cost-saving recommendations.
- Collaborated with senior analysts and engineers in building and documenting data pipelines that automated routine reporting tasks, reducing manual effort by 30%.
- Participated in regular sprint meetings and contributed to cross-functional discussions, enhancing both technical and communication skills in a professional environment.

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## ORGANIZATIONS

### **Chairperson of the Student Association | HMIF BEM FT – UMJ**

*Jan 2023 – Nov 2023*

- Lead HMIF BEM FT - UMJ as Chairperson, overseeing strategic planning, coordination, and execution of academic and non-academic programs that engaged over 300+ Informatics Engineering students.
- Worked closely with the Vice Chairperson to manage the organization's day-to-day operations and coordinate key agendas, ensuring all student association activities ran smoothly and in alignment with yearly goals.
- Directed a team of 30+ student officers across multiple department (Cadre Development, Science and Technology, Community Service, Information and Communication Technology, Maintenance of Association Rooms and Libraries), resulting in a 40% increase in organizational productivity and event quality.
- Initiated and implemented collaborative programs with external institutions and tech communities, including workshops, seminars, and competitions, which boosted student participation and professional exposure.
- Managed internal governance, budgeting, and organizational decision-making processes, ensuring transparent and accountable leadership throughout the term.
- Facilitated regular leadership meetings, team-building sessions, and performance evaluations, fostering a high-performing and cohesive organizational culture.
- Represented the student body in faculty-level decision-making forums, successfully advocating for curriculum updates and digital innovation initiatives aligned with industry trends.

### **Head of the Department of Science and Technology | HMIF BEM FT – UMJ**

*Apr 2022 – Jan 2023*

- Led the Department of Science and Technology in HMIF BEM FT - UMJ, planning and executing programs focused on academic enrichment, digital literacy, and technological innovation for Informatics Engineering students.
- Initiated, organized, and took full responsibility for the annual flagship event "INFORMATIONALL", a multidisciplinary tech-based seminar and workshop series, successfully engaging 200+ participants and inviting speakers from industry and academia.
- Designed and implemented technical workshops, coding bootcamps, and seminar series that enhanced student skills in AI, data science, software development, and automation.
- Collaborated with internal divisions and external partners (including campus units and tech communities) to develop impactful learning programs, resulting in a 60% increase in student engagement in academic-related events.
- Mentored a team of staff members to manage event logistics, content development, and participant outreach, leading to efficient execution of 10+ science and tech-focused initiatives during the term.
- Worked alongside the Chairperson and Vice Chairperson in aligning departmental goals with the broader vision of HMIF, contributing to a more integrated and strategic organizational agenda.
- Evaluated program impact and participant feedback to continuously improve future initiatives, resulting in higher satisfaction ratings and better skill applicability for students.

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## CERTIFICATION

### **Generative AI with Large Language Models | DeepLearning.AI**

*Feb 2025*

- Gain foundational knowledge, practical skills, and a functional understanding of how generative AI works
- Dive into the latest research on Gen AI to understand how companies are creating value with cutting-edge technology
- Instruction from expert AWS AI practitioners who actively build and deploy AI in business use-cases today

## **Introduction to Machine Learning on AWS | Amazon Web Service**

*Feb 2025*

- Differentiate between artificial intelligence (AI), machine learning, and deep learning.
- Select the appropriate AWS machine learning service for a given use case.
- Discover how to build, train, and deploy machine learning models

## **Advanced Deployment Scenarios with TensorFlow | DeepLearning.AI**

*Nov 2023*

- Use TensorFlow Serving to do inference over the web
- Navigate TensorFlow Hub, a repository of models that you can use for transfer learning
- Evaluate how your models work and share model metadata using TensorBoard
- Explore federated learning and how to retrain deployed models while maintaining data privacy

## **Data Pipelines with TensorFlow Data Services | DeepLearning.AI**

*Nov 2023*

- Perform efficient ETL tasks using Tensorflow Data Services APIs.
- Construct train/validation/test splits of any dataset - either custom or present in TensorFlow Hub Dataset library - using Splits API
- Use different modules and functions of the TFDS API to prepare your data for training pipelines
- Identify bottlenecks in your input pipelines and increase your workflow efficiency by input parallelization

## **Device-based Models with TensorFlow Lite | DeepLearning.AI**

*Nov 2023*

- Prepare models for battery-operated devices
- Execute models on Android and iOS platforms
- Deploy models on embedded systems like Raspberry Pi and microcontrollers

## **Sequences, Time Series and Prediction | DeepLearning.AI**

*Nov 2023*

- Solve time series and forecasting problems in TensorFlow
- Prepare data for time series learning using best practices
- Explore how RNNs and ConvNets can be used for predictions
- Build a sunspot prediction model using real-world data

## **Natural Language Processing in TensorFlow | DeepLearning.AI**

*Nov 2023*

- Build natural language processing systems using TensorFlow
- Process text, including tokenization and representing sentences as vectors
- Apply RNNs, GRUs, and LSTMs in TensorFlow
- Train LSTMs on existing text to create original poetry and more

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## **SKILLS**

### **Technical Skills**

- Programming Languages & Scripting (Python, SQL, Go, JavaScript, Java, C/C++)
- Machine Learning & Artificial Intelligence (Scikit-learn, TensorFlow, Keras, PyTorch, XGBoost, OpenCV, NLP (SpaCy, NLTK), RNN/LSTM/GRU, Generative AI (LLMs), Transfer Learning, Federated Learning)
- Robotic Process Automation (Python Automation (Selenium, PyAutoGUI), Gleematic AI, Email & File Automation, Excel Automation, Web Scraping Automation)
- Data Engineering & Pipeline (Pandas, NumPy, Windows Task Scheduler, TensorFlow Data Services (TFDS), ETL/ELT Design, Data Wrangling, API Integration (REST/JSON/XML), Data Validation & Quality Checks)
- Web & Backend Development (Flask, FastAPI, Django, RESTful API Design, JWT Auth, Postman, JSON/XML Parsing, Node.js)
- Databases & Storage (PostgreSQL, MySQL, SQLite, MongoDB, Firebase Realtime DB)

## **Core Competencies**

- Communication & Leadership
- Analytical & Strategic Thinking
- Cross-functional Collaboration
- Agile & Scrum Methodologies
- Technical Mentoring & Team Development