

# MUHAMMAD AIDAN DAFFA JUNAIDI

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## SUMMARY

Master's graduate with a strong background in data-driven decision-making and scalable software development. Passionate about roles in data-related fields, software engineering, and quality assurance. Experienced in leveraging analytical and problem-solving skills to deliver innovative solutions. Highly motivated to apply analytical and technical skills in real-world problem-solving and contribute to impactful projects.

## EDUCATION

University of Indonesia (UI) – Jakarta, Indonesia

Aug 2023– Jan 2025

Master of Engineering in Data Engineering & Business Intelligence - (3.97/4.00)

Thesis: “**Development and Optimization of SIMPLE-O: An Automated Essay Scoring System for Japanese Language Based on BERT, BiLSTM, and BiGRU**”. This research focused on developing and optimizing an automated essay scoring system using advanced deep learning techniques to assess the quality of Japanese language short-essays.

University of Indonesia (UI) – Jakarta, Indonesia

Aug 2019– Oct 2023

Bachelor of Engineering in Computer Engineering - (3.81/4.00)

Thesis: “**Comparative Analysis of Several Deep Learning CNN Architecture Models in Identifying Types and Health of Coral Reefs**”. This thesis involved classifying coral reef health into six levels and categorizing reef types based on morphological shapes. The analysis was conducted using four pre-trained CNN models.

## SKILL SUMMARY

**Programming Languages:** Python, Javascript, SQL, Java, Dart, C, C++, VHDL, PHP  
**Frameworks:** Node.js, React.js, Next.js, Flutter, Tensorflow, Keras, Streamlit  
**Tools & Platform:** MySQL, PostgreSQL, MongoDB (NoSQL), Apache Hadoop, Amazon Web Services (AWS), Tableau, Power BI, Git, MS Office, Figma, Linux, Selenium  
**Soft Skill:** People Management, Time Management, Team Collaboration, Analytical Thinking, Adaptability, Critical Thinking, Excellent Communication

## PROFESSIONAL EXPERIENCE

QA Software Engineer – Henan Asset Management , Indonesia

Sep 2023 – Sep 2024

Contract

- **Developed** and implemented **automation scripts** using **Selenium** to enhance testing efficiency, significantly reducing manual testing time.
- **Designed** and executed comprehensive testing scenarios to ensure software quality, focusing on both functional and non-functional testing.
- **Conducted thorough testing**, identified, and reported bugs on each endpoint using **Jira** for efficient tracking and issue resolution, ensuring reliable and robust performance.
- **Collaborated** with development teams to improve overall product quality by providing actionable feedback from **Postman** and **Sentry** testing results.
- **Performed testing for 2 major projects** a web-based backoffice system and a mobile app-based mutual fund platform, ensuring both applications met high standards for user experience, functionality, and security.

Software Engineer – Dankos Farma, Indonesia

Oct 2022 – Mar 2023

Internship

- **Designed and implemented** a new **workflow** and **features** for the internal website using **Node.js**, and **React.js**, enhancing system functionality and improving overall user experience through seamless integration of multiple processes and pages.
- Utilized **PostgreSQL** for managing data storage and retrieval efficiently, ensuring secure and reliable operations for new features.
- **Created scenarios** for testing and validating new features, ensuring seamless integration and high-quality performance across the platform.
- Developed **training materials** to educate internal teams on the updated features.

IT Quality Assurance – Bank Syariah Indonesia, Indonesia

Feb 2022 – July 2022

Internship

- Utilized **JMeter** for performance and load testing, identifying bottlenecks and ensuring system scalability.
- **Created and maintained** comprehensive functional and non-functional test documentation, ensuring clarity and consistency in the testing process.
- **Conducted scenario tests** to validate software against both functional and non-functional requirements, ensuring

reliability and performance.

- **Developed and tracked** detailed testing documentation to report on test outcomes and provide actionable insights.
- **Prepared test data** for user acceptance testing by performing **SQL queries** on the database.

## PROJECTS

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### Sales Performance Analysis

*Feb 2025*

- Created interactive dashboards to visualize sales trends, customer segmentation, and profitability.
- Applied data cleaning and preprocessing techniques to ensure data quality before visualization.
- Provided actionable business insights, such as improving profitability based on product categories or regions.

### HalluGuard: Anti-Hallucination Chatbot

*Jul 2024*

- **Developed** an anti-hallucination extension to enhance AI-driven chatbot reliability using **TinyLlama-1.1B** for classification and fact-checking.
- Built a web-based interface with **Streamlit (frontend)** and **Node.js (backend)** to provide real-time AI response validation.
- Integrated **Brave Search API** for evidence retrieval and **GPT API** as a fallback for fact verification.
- Achieved a response time **standard deviation of 120.43ms** for “Fact Classification” and **391.33ms** for “Fact Check”, ensuring system stability.

### Hand Gesture Recognition

*Jun 2024*

- Built a **real-time hand gesture recognition system** using **MediaPipe** for hand landmark detection.
- Implemented **machine learning-based classification** for accurate gesture interpretation.

## ORGANIZATIONAL AND VOLUNTEERING EXPERIENCE

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### MADK - University of Indonesia

*Jun 2022 – Aug 2022*

#### *Head of Internal Affairs*

- **Led 3 divisions with a total of 20+ staff**, fostering a sense of responsibility and strong time management within the team, while **reporting** progress to the project officer.
- **Developed and designed** a comprehensive syllabus for the program, ensuring all relevant topics were covered effectively.
- **Presented and communicated** syllabus details and program goals to **stakeholders** and **staff**, ensuring alignment and understanding across all parties.

### EXERCISE - University of Indonesia

*Jan 2022 – Dec 2022*

#### *Software Staff*

- **Led** a team of **2–4 staff** as **Senior Developer** in a website development project, managing key aspects of the project lifecycle and ensuring timely delivery.
- **Contributed** to PCB design projects, ensuring technical precision, innovation, and alignment with project requirements.

### Save My Life App - University of Indonesia

*Oct 2021 – Jan 2022*

#### *Legal Software Documentation*

- **Drafted and prepared** comprehensive End-User License Agreements (EULA) and patent documentation, ensuring the software adhered to legal standards and intellectual property protections.

### IME FTUI - University of Indonesia

*Jan 2021 – Dec 2021*

#### *Senior Staff of Student affair*

- **Led and oversaw** the successful execution of various programs, including the LDPE program and other student affairs initiatives, ensuring their objectives were achieved effectively.
- **Developed and implemented** an annual development plan, aligning division goals with organizational objectives.
- **Monitored and ensured** adherence to the division's timeline, maintaining efficiency and meeting deadlines.

## ADDITIONAL

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**Languages:**

- English (Professional Working Proficiency)
- Japanese (Beginner Level / N5)

**Achievements:**

- Selected for the MSIB Batch 2 Program
- Awarded a Fast Track Scholarship From University of Indonesia.