

# Muhammad Daffa Safriel Sabilillah

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## Profile

- Automation engineering student and national robotics champion with hands-on expertise in failure analysis, quality inspection, and remanufacturing processes in both manufacturing and maritime sectors.
- Demonstrated ability to lead interdisciplinary teams to design and deliver robust, real-world automation and component reliability solutions, especially in high-performance environments involving mechanical system diagnostics and industrial equipment control.
- Skilled in root cause analysis, embedded system integration, and quality assurance, with a keen focus on precision, preventive maintenance, and systemic-level innovation.

## Education

**Sepuluh Nopember Institute of Technology** – GPA: 3.35/4.00

Aug 2022 – Present

*Applied Bachelor's Degree(D4) in Electrical Automation Engineering*

## Experiences (selected)

**PT. Unilever Indonesia** – *Digitalization & Automation System Intern*

Feb 2025 – Aug 2025

- Aligned with and contributing to the enhancement of Unilever Indonesia's vision in optimizing factory operations through digital transformation.
- Developed a digital traceability method to streamline lost-slip detection in warehouse operations, reducing search time from daily to minutes and preventing potential annual losses of over Rp1.5 billion.
- Engineered real-time diagnostic grid for logistic flow, accelerating bottleneck resolution latency by 24%.

**PT. Pertamina Trans Kontinental** – *Project Leader of ARSY B MARK II*

Aug 2023 – Nov 2023

- Led the development of a remote-controlled rescue buoy to improve emergency response for Man Overboard (MOB) incidents at jetty and refinery areas, reducing retrieval time from 3–5 minutes to under 1 minute.
- Improved safety response efficiency by 75% compared to conventional ring buoys, enabling faster intervention in high-risk offshore and industrial environments.

**Banyubramanta Underwater Robotics Team** – *Head of Electrical Technician Division*

Feb 2023 – Jun 2025

- Led a 5-member electrical team in a 6-month underwater robotics development, aligning designs with mechanical/software subsystems to deliver a mission-ready robot for International competition.
- Engineered Electrical subsystems for Autonomous Underwater Vehicle (AUV), including safety power distribution, emergency shutoff, and PID-based control system. Boosted system reliability and operational safety.

**PT. Innoveam Indonesia** – *Electrical Technician of Shooting Target Robot*

Jul 2024 – Aug 2024

- Developed electrical system of the target shooting robot, achieving a reduction of non-productive time of up to 96% and improving safety by reducing unnecessary movement in the direct fire zone.

## Awards & Achievements (selected)

**1st Place National Kontes Robot Bawah Air Indonesia** [Credential] by PUSPRESNAS

Jul 2024

Achieved 1st place at the Indonesian Underwater Robot Contest 2024, standing out among 18 top universities.

**Best Strategy National Kontes Robot Bawah Air Indonesia** [Credential] by PUSPRESNAS

Jul 2024

Coordinated interdisciplinary teams as Project Officer, delivering best mission execution among national competitors.

**1st Place Mate ROV ASEAN**[Credential] by Mate ROV

May 2023

Designed and deployed a remotely operated underwater robot (ROV) to execute precision subaquatic missions.

## Certificates

**Google Project Management** [Certificate]

Apr 2025

*Issued by Google* | Credential ID <https://coursera.org/verify/profession al-cert/0W5QIQG3WEKW>

**Electrical Safety Training** [Certificate]

Apr 2025

*Issued by NYC Construction Safety Training* | Credential ID NYCCST-20250410-53195733

**PLC Training** [Certificate]

Nov 2024

*Issued by ITS Tekno Sains* | Credential ID 02140/T071/TSA/XI/2024

## Skills

**Engineering:** Failure Analysis, Root Cause Diagnosis, System Reliability;

**Tools:** MS Office, KiCad, Fusion 360, ESP32, Omron PLC, CANBus, Blynk, YOLO;

**Programming:** C/C++, Python, Ladder Diagram;

**Soft Skills:** Project Management, Interdisciplinary Collaboration, Agile Workstyle