

SEFVIA LIE

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Profile

Best Biomedical Engineering Graduate from Universitas Gadjah Mada with a strong foundation in research, data analysis, and technology-driven problem solving. Presented original research at the IEEE ICITEE 2025 in Bangkok, showcasing innovation and communication excellence at an international level. Committed to continuous learning and contributing disciplined, analytical, and high-quality work within globally standardized environments.

Education

Universitas Gadjah Mada Aug 2021 – Aug 2025
Undergraduate, Biomedical Engineering. GPA: 3.73/4.00. Best Biomedical Engineering Graduate 2025

Language Proficiency

English Proficiency Test Jul 2025–
Research and Development for Societal Impact FEB UGM Yogyakarta, Indonesia
593/677

Project

Research in Surgical Robotics Feb 2025– July 2025
Imitation Learning Approach for Needle Picking Task in Autonomous Surgical Robot Control Yogyakarta, Indonesia

- Developed and optimized machine learning and deep learning models for surgical robotic automation.
- Published and presented the work at the IEEE International Conference on Information Technology and Electrical Engineering (ICITEE 2025), Bangkok, Thailand.

Technology Innovation Project March 2024– Nov 2024
Inkubi - Smart Infant Incubator Yogyakarta, Indonesia

- Engineered a smart incubator prototype integrating IoT sensors for real-time monitoring and sustainable thermal management.
- Applied system modeling, experimental testing, and data analysis to optimize performance and reliability.

Machine Learning Engineer Oct 2024– Nov 2024
Development of Tuberculosis Classification Website (<https://tbc-classification-web.vercel.app>) Yogyakarta, Indonesia

- Built and deployed a deep learning model and API for automated tuberculosis image classification, utilizing Tensorflow, FastAPI, and Docker.
- Collaborated with frontend developers to deliver a responsive, user-friendly web interface for automated diagnostics.

Work Experience

Lecturer Assistant Aug 2024– Jul 2025
Department of Electrical Engineering and Information Technology, FT UGM Yogyakarta, Indonesia

- Supported delivery of over 9 STEM courses for 600+ students, preparing structured teaching materials and quantitative assessments.
- Developed skills in organizing clear, data-driven content and structuring complex information.

Neuroimaging and Signal Processing Intern Jan 2024– Feb 2024
C-Tech Labs Edwar Technology Tangerang, Indonesia

- Conducted applied research on neuroimaging signal processing using ECVT, analyzing large-scale datasets with MATLAB and Excel.
- Enhanced problem-solving skills by interpreting complex data and presenting results to multidisciplinary teams.

Basic Science Lab Assistant Sep 2023– Des 2023
Basic Laboratory DTETI FT UGM Yogyakarta, Indonesia

- Facilitated quantitative lab sessions, focusing on circuit theory and linear algebra problem-solving.

Tutorial Assistant Aug 2022– Des 2023
Department of Electrical Engineering and Information Technology, FT UGM Yogyakarta, Indonesia

- Facilitated group learning sessions on signal analysis and fundamental physics, encouraging critical thinking and problem-solving.
- Guided students in applying theoretical knowledge to real-world engineering scenarios

Organization Experience

Liaison Officer Division Staff	Jul 2023– Aug 2023
<i>Summer Course Faculty of Dentistry UGM 2023</i>	<i>Yogyakarta, Indonesia</i>
<ul style="list-style-type: none"> • Coordinated communication among 90 international students and 10 ASEAN Japanese faculties, ensuring smooth cross-cultural collaboration. • Managed cross-cultural guest handling and facilitated high-level collaboration between university leaders and international partners. 	
Liaison Officer Division Staff	Sep 2021– Jun 2023
<i>National Electrical Power System Competition (NESCO) 2023</i>	<i>Yogyakarta</i>
<ul style="list-style-type: none"> • Managing guest handling, event coordination, and facilitating smooth communication between teams. • Utilized problem-solving skills and multilingual communication to resolve issues promptly and ensure seamless collaboration across division. 	
Sponsorship Division Staff	Sep 2021– Jun 2022
<i>Find IT! 2022</i>	<i>Yogyakarta</i>
<ul style="list-style-type: none"> • Sought funds by contacting several companies to offer to sponsor Find IT! events. • Opened several services such as paid promotion and questionnaire filling. 	

Skills

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| • Programming (Python, C++, SQL) | • Time management |
| • Machine learning, deep learning | • Team and individual work |
| • Biomedical Image Analysis | • Communication |
| • Intermediate SQL (PostgreSQL) | |

Certifications

Data Engineer Associate in SQL	Nov 2025– Dec 2027
<i>DataCamp</i>	<i>Online</i>
<ul style="list-style-type: none"> • Certified in foundational data engineering skills using SQL, including data extraction, cleaning, transformation, and preparation for analytics and reporting. • Familiar with relational database design, data warehousing concepts, and ETL/ELT processes to support reliable and scalable data pipelines. 	
Data Analyst Associate	Nov 2025– Nov 2027
<i>DataCamp</i>	<i>Online</i>
<ul style="list-style-type: none"> • Certified in data analysis using PostgreSQL and Python, covering data extraction, cleaning, aggregation, hypothesis testing, and visualization. • Gained practical experience in reporting and communicating analytical insights to diverse audiences. 	
Biomedical Image Analysis in Python	Aug 2023–
<i>DataCamp</i>	<i>Online</i>
<ul style="list-style-type: none"> • Trained in biomedical image processing using Python, including image reading, preprocessing, segmentation, and visualization with NumPy and scikit-image for healthcare data applications. 	