

# 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*  
593/677

*Yogyakarta, Indonesia*

## 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

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### Liaison Officer Division Staff

**Jul 2023– Aug 2023**

*Summer Course Faculty of Dentistry UGM 2023*

*Yogyakarta, Indonesia*

- 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**

*National Electrical Power System Competition (NESCO) 2023*

*Yogyakarta*

- 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**

*Find IT! 2022*

*Yogyakarta*

- 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)
- *Machine learning, deep learning*
- Biomedical Image Analysis
- Intermediate SQL (PostgreSQL)
- Time management
- Team and individual work
- Communication

## Certifications

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### Data Engineer Associate in SQL

**Nov 2025– Dec 2027**

*DataCamp*

*Online*

- 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**

*DataCamp*

*Online*

- 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–**

*DataCamp*

*Online*

- Trained in biomedical image processing using Python, including image reading, preprocessing, segmentation, and visualization with NumPy and scikit-image for healthcare data applications.