

SHAF A ZAHRA AULIA

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Fresh graduate with a Bachelor's degree in Chemistry from Universitas Gadjah Mada, with experience in laboratory research, analytical testing, and material characterization through roles as a Research Intern at BRIN, SEM-EDX Research Analyst at LPPT UGM, and Chemistry Laboratory Assistant. Proficient in laboratory experimentation, ASTM/ISO-based testing methods, data analysis, and scientific reporting. Nationally recognized for research and innovation achievements, earning a Gold Medal in Poster category and a Bronze Medal in presentation category at PIMNAS-37 in 2024. Experienced in supporting laboratory programs involving 200+ students, demonstrating strong analytical thinking, attention to detail, problem-solving, communication, coordination, leadership, and teamwork skills.

EDUCATION

Universitas Gadjah Mada

Aug 2022 - May 2026

Bachelor of Science in Chemistry (GPA: 3.70/4.00)

- Co-authored a Scopus Q1 journal publication (6th author) titled "Effect of Catalyst Bed Configuration on Hydrotreatment of Palm Shortening into Bio-Jet Fuel Over Ultrasonically Prepared NiMo/AC Catalysts" (2026).
- Awarded a gold medal for outstanding poster category in the Student Creativity Program in Entrepreneurship (PKM-K), 37th National Student Scientific Week (PIMNAS) – Ministry of Education, Culture, Research, and Technology (2024).
- Awarded a bronze medal for presentation category in the Student Creativity Program in Entrepreneurship (PKM-K), 37th National Student Scientific Week (PIMNAS) – Ministry of Education, Culture, Research, and Technology (2024).
- Received funding through the Student Entrepreneurship Program (PMW) – Universitas Gadjah Mada (2024).
- Received funding through the Student Creativity Program in Community Service (PKM-PM) – Ministry of Education, Culture, Research, and Technology (2023).

PROFESSIONAL EXPERIENCE

Physical Chemistry Laboratory Assistant

Feb 2026 - Jun 2026

Department of Chemistry, Universitas Gadjah Mada

- Created pre- and post-laboratory assessments for 80 students across a 10-week physical chemistry laboratory program.
- Mentored 80 students during laboratory sessions, ensuring accurate experimental procedures, and safety compliance.
- Evaluated 80 laboratory reports and practical examinations, and providing feedback on scientific writing.

SEM-EDX Research Analyst

Jan 2026 - Mar 2026

Integrated Research and Testing Laboratory (LPPT), Universitas Gadjah Mada

- Analyzed morphology and elemental composition data from 15+ catalyst and support material samples.
- Prepared 15+ catalyst and support material samples for SEM-EDX characterization.

Basic Chemistry Laboratory Assistant

Aug 2025 - Nov 2025

Department of Chemistry, Universitas Gadjah Mada

- Mentored 120 first-year Biology students during a semester-long laboratory course, introducing laboratory equipment, safety protocols, and practical regulations while guiding pKa determination experiments using a pH meter.
- Created two sets of pre-laboratory assessments and laboratory report templates.
- Evaluated 120 laboratory reports and practical examinations, assessing scientific writing, and experimental execution.

Research Internship Student

Feb 2025 - Apr 2025

Laboratory of Energy Resources, Fuel, and Environment (LSEBBL), National Research and Innovation Agency (BRIN)

- Synthesized biodiesel and prepared biodiesel blends (B30–B60).
- Conducted biodiesel characterization using ASTM and ISO standard methods to evaluate fuel quality parameters, including viscosity, density, acid value, water content, sulfur content, and FAME concentration.
- Operated FTIR, Karl Fischer titrator, SVM 3001 Anton Paar, automatic titrimeter, and XOS PETRA analyzers for physicochemical testing of biofuel samples.

LEADERSHIP EXPERIENCE

Chemistry Student Association (Keluarga Mahasiswa Kimia)

Jan 2024 – Dec 2024

Head of Internal Affairs, Public Relations Department

- Led the coordination of MC development initiatives by supervising the preparation of scripts and training sessions for 15+ academic and organizational events.
- Organized MC training activities for 10+ Public Relations members, coordinating event logistics and speaker arrangements with 1 invited public speaking trainer.

National Chemistry Seminar

Jun 2024 – Oct 2024

Sub-coordinator of design, decoration, and documentation

- Assisted in developing decoration concepts for a departmental seminar event.
- Prepared decorations to support event execution.

Industrial Visit Department of Chemistry

Feb 2024 – Aug 2024

Event division staff

- Assisted in event planning and logistics for an industrial visit attended by 98 participants, including scheduling, participant guidelines, and merchandise preparation.
- Collaborated with the public relations team to identify visit destinations

Industrial Visit Department of Chemistry

Apr 2023 – Dec 2023

Treasurer

- Prepared budget plans, monitored cash flow, and produced financial accountability reports for IDR 68+ million in program funds.

National Chemistry Olympiad

Jun 2023 – Nov 2023

Staff Public Relations

- Coordinated partnerships and communications with 10+ media partners.
- Facilitated communication between organizers, participants, parents, and government representatives.
- Served as a Liaison Officer (LO) for participants and parents.

Lingkar Studi Sains (LSiS)

Nov 2022 – Dec 2023

Staff knowledge department

- Prepared tutorial materials for midterm and final examinations for 25+ LSiS members and Faculty of Mathematics and Natural Sciences students.
- Contributed to the preparation and delivery of a one-month language training program for 20+ participants.
- Led the planning and execution of a scientific discussion attended by 30+ participants

LICENSES & CERTIFICATIONS

Udemy

Issued Sep 2026

ISO/IEC 17025:2017 - The Complete ISO 17025 Course

Kampung Inggris Language Center

Issued Jul 2026

English Course (Skor 82/100)

PT Beniso Maju Bersama

Issued Nov 2023

Quality Management System Certificate (ISO 9001:2015)

SKILLS

Technical Skills: SEM-EDX, FTIR, Karl Fischer titrator, SVM 3001 Anton Paar, automatic titrimeter, and XOS PETRA**Software:** OriginPro, ChemDraw, Microsoft Tools (Microsoft Word/ Excel/ PowerPoint)**Professional Skills:** Public Speaking, Team Collaboration, and Problem Solving**Languages:** English (Professional Working Proficiency), Indonesia (Native)