

SUMMARY

Biology graduate from Diponegoro University with a strong focus on **biopharmaceutical development, integrating laboratory expertise, analytical thinking, and project execution** within structured, regulatory-driven environments. **Hands-on experience** in a biotechnology company, contributing to product development, process documentation, quality-related workflows, and early-stage scale-up activities, supported by practical experience in biochemistry and microbiology analysis. Proven ability to translate experimental and process data into structured insights, ensure accuracy and compliance, and collaborate across functions to support innovation and efficient project delivery. Highly driven to contribute to R&D, Quality, and Innovation-focused roles in the biotechnology and pharmaceutical industry.

Interest: Biotechnology, biopharmaceutical development, process improvement, quality and compliance, and project management.

EDUCATION

UNIVERSITAS DIPONEGORO 2021 - 2025
Undergraduate Student of Biology (GPA: 3.73/4.00)

PROFESSIONAL EXPERIENCES

PT. ETANA BIOTECHNOLOGIES INDONESIA Oct 2025 – April 2025
Innovation Center Department Intern (MagangHub Kemnaker Batch 1)

- Successfully contributed to the **development pipeline of 7 infusion product projects** by delivering end-to-end analytical mapping of raw materials and preparing structured documentation (Initial BOM, Batch Record, and Process Flow, etc.) across both small-scale and commercial-scale production.
- Ensured accuracy and feasibility in raw material planning across multiple products and scales, adapting to varying capacities from external manufacturing partners.
- **Supported cross-functional collaboration** between internal R&D teams and external toll manufacturers to align development timelines, production capacity, and technical feasibility, while gaining hands-on exposure to manufacturing feasibility considerations and scale-up challenges through active involvement in partner discussions.
- Contributed to project readiness by supporting scalable process frameworks design, coordinating documentation, development workflows, and milestone tracking across multiple projects, enabling a smooth transition from early-stage development to commercialization.
- Drove early-stage business and innovation initiatives through involvement in cross-sector programs (e.g., mRNA Vaccine training), enabling effective knowledge transfer between industry, academia, and key stakeholders.
- **Strengthened innovation and partnership** efforts by supporting the Innovation Center team in advancing strategic collaborations, while gaining exposure to regulatory frameworks and external stakeholder engagement, including interactions with government institutions and participation in industry forums and knowledge-sharing platforms.

BIOTECHNOLOGY LABORATORY (THESIS) 2025
Biochemistry & Microbiology Research Analyst (Identification of Quercetin Flavonoid Compounds, Determination of Chlorophyll Content, and Antibacterial Activity Testing of Moringa (Moringa oleifera L.) Leaf Extract against Staphylococcus aureus)

- Researched and addressed a major public health issue by investigating *Staphylococcus aureus*, a primary pathogenic bacterium causing infections in humans, and demonstrated the antibacterial potential of *Moringa oleifera* leaf extract as an alternative solution.
- Conducted extraction and phytochemical analysis of *Moringa oleifera* leaves, achieving a 46.88% extraction yield and identifying bioactive flavonoids (quercetin group) through TLC (Rf = 0.806, close to standard 0.967).
- Performed antibacterial assays (*Kirby-Bauer method*), demonstrating a significant inhibition zone of 13.8 mm at 80% concentration, confirming moderate-to-strong antibacterial activity against *Staphylococcus aureus*.
- Measured chlorophyll content (31.88 mg/L) via spectrophotometry, highlighting the high bioactive potential of the extract in supporting antibacterial properties.
- Analyzed experimental data using *IBM SPSS Statistics* with *ANOVA* and *Post-Hoc Duncan* tests to determine the correlation between extract concentration and antibacterial efficacy.

PT. RIZQU TIRTA SWASTIKA (PT. Rizqu Konsultan) 2024
Digital Marketing Intern

- Gained 976++ followers (91% increased) for the [@enviroacademy](#) project within 2 months and implemented *Meta Ads* to optimize content strategy.
- Managed all social media platforms of [@enviroacademy](#) [@jadiringan.id](#), including TikTok, Instagram, and LinkedIn, while analyzing overall engagement and increased views on TikTok.
- Led a personal project involving the launch of a digital product and landing page development, which has been running for 3 months.
- Increased membership to 50+ active members and attracted a diverse mix of students, fresh graduates, and industry professionals.
- Developed a data-driven content calendar for Mining and Environmental Consulting through comprehensive analysis of industry trends and recent cases.
- Successfully led an on-site project survey, provided strategic recommendations, and coordinated closely with clients to ensure project goals and outcomes were achieved.

BIOCHEMIST ASSISTANT 2024
Laboratory Assistant

- Coordinated and facilitated biochemical laboratory sessions for Class B, 2023 cohort, overseeing all aspects of practical sessions including preparation of materials, demonstrations, and guidance for junior students.
- Supported laboratory management and supervising professors in the execution of practical sessions, contributing to the development of practical materials, and ensuring laboratory cleanliness and maintenance.

- Managed comprehensive assessment of students, including grading official and interim lab reports, final responsi assessments, pre-test and post-test evaluations, presentation evaluations, and tracking student participation, ensuring accurate recording and reporting of student performance to relevant faculty members.

MOLECULAR AND APPLIED MICROBIOLOGY LABORATORY of DIPONEGORO UNIVERSITY

2023

Research Genetic Microbiology Intern

- Conducted a one-month internship focusing on genetic engineering research aimed at enhancing the degradation process of PET plastics by inducing the formation of PETase enzymes within proteins sourced from E. coli BL21 EN16 isolates.
- Orchestrated the analysis of research outcomes, centered around the theme 'Extraction of Polyethylene Terephthalate (PET) Degrading Proteins from E. coli BL21 EN16'. This comprehensive analysis encompassed eight distinct sample categories, including Non-Induced (N), Induced (I), Supernatant (S), Pellet (P), Flow Through (FT), and Fractions 1 to 3 (f1, f2, and f3), alongside the incorporation of DNA markers and BSA.
- Demonstrated proficiency in laboratory techniques and protocols, ensuring precision and accuracy in experimental procedures, data collection, and analysis, while adhering to stringent safety and ethical standards.

ORGANIZATION EXPERIENCES

HIMPUNAN MAHASISWA BIOLOGI (HMB)

2022 - 2023

Expert Staff, Minat dan Bakat Division (2023)

Junior Staff, Minat dan Bakat Division (2022)

- Spearheaded the MIKAT division, providing a platform for the cultivation of talents and skills among Biology students at UNDIP through engagement in training, performances, and competitions in sports and the arts, fostering a familial atmosphere with a competitive spirit that upholds sportsmanship.
- Collaborated with 12 team members, contributing to decision-making processes, fostering teamwork, solidarity, and other essential organizational aspects.
- Demonstrated accountability by taking on responsibilities and offering mutual support within the team, ensuring tasks were completed efficiently and without coercion.
- Served as the Treasurer, managing all financial transactions throughout the entire program period, ensuring transparency and accuracy in financial matters.

RATOH JAROE UNDIP17 (RJU17)

2022 - 2024

Secretary (2024)

- Managed information systems, particularly in organizing archiving processes and preparing various documents, letters, and reports essential for the organization's operations.
- Oversaw all files, correspondences, archiving, and proposals for RJU17's activities, as well as memoranda of understanding (MoU).
- Facilitated the disbursement of sponsorship funds for specific events, ensuring timely financial support.
- Established and maintained the membership database for RJU17, facilitating efficient communication and organization within the group.

- Public Relation Staff (2023), Wardrobe Staff (2022)
- Increased followers on TikTok and Instagram up to 1k followers (92% increase) within 4 months through content optimization and engangement strategy also 200% increase in content views engangement rate.
 - Played a pivotal role in marketing by enhancing engagement and visibility within the target audience, thereby increasing public awareness of RJU17's activities.
 - Cultivated strong communication channels both internally and externally, fostering positive relationships with stakeholders also collaborated with 30+ external partnership
 - Maintained responsibility for managing all RJU17 social media accounts, with a focus on Instagram, TikTok, and YouTube, ensuring consistent and engaging content also actively pursued and achieved targets by continuously enhancing audience engagement strategies.
 - Consistantly produce video content for TikTok and Instagram Reels with 3 videos per week. Content focuses on related competitions, ensuring members and followers were informed about relevant events and opportunities.
 - Held accountability for all aspects of wardrobe management, including costumes, accessories, makeup, and related necessities.
 - Designed and created costumes using various fabrics, designs, and color palettes to align with the organization's aesthetic and thematic requirements.
 - Prepared comprehensive makeup kits and ensured the availability of professional makeup artists (MUAs) for performers.
 - Organized Beauty Classes to enhance members' knowledge and skills in beauty and makeup application techniques.

VOLUNTEER EXPERIENCES

- AIESEC & DANONE Indonesia 2022: University Ambassadors of GESID (Generasi Sehat Indonesia) Project
- Addressed the significance of health awareness among youth who often neglect their well-being, discussing various adolescent health issues and empowering solutions based on self-potential.
 - Participated in Training of Trainers sessions, imparting insights and organizing challenging activities to encourage youth involvement in addressing prevalent issues.

- HMB 2022: VOLUNTEER MANGROVE PLANTING AT MANGUNHARJO BEACH, SEMARANG
- Contributed to the reforestation efforts by planting mangrove seedlings at Mangunharjo Beach, Semarang, aiming to revive the mangrove forest, protect the coastline, and demonstrate environmental stewardship.

- HMB 2022: BIOLOGY OUTREACH AT AL-IKHLAS ORPHANAGE, SEMARANG
- Volunteered in the BIOMENG (Biology Outreach) program, educating children of all ages about the significance of Ecoenzyme in the era of globalization through hands-on practical demonstrations. Ecoenzyme, derived from kitchen organic waste fermentation, serves various ecological and human benefits, including natural herbicides and pesticides, water filtration, and organic fertilizer production, aiding in greenhouse gas reduction.

FROMTOBY.US 2021: WONDERSHARE CAMPAIGN PROJECT

- Led a campaign focusing on the correlation between self-love and altruism, encouraging individuals to prioritize self-care while also considering future plans and the well-being of others through public awareness and open donations.

COMMITTE EXPERIENCES

- HMB 2023: Public Relations Division and MC for BSC (Biology Sport Competition)
- HMB 2023: Chair of Ekotif Division (Fundraising) for BOTM Project (Biology On The Move)
- HMB 2023: Moderator for OK & UPGRADING event by LITBANG HMB
- BEM UNDIP 2023: Marketing & Ticketing for DIPOFAIR (Diponegoro Fair)
- HMB 2022: Treasurer 1 for BOTM Project (Biology On The Move)
- HMB 2022: PEMIRA and LKMMPD Events Division

ACHIEVEMENT

- 2022 (AIESEC & DANONE): University Ambassadors of GESID (Generasi Sehat Indonesia) Project
- 2022 (HMB): Best Junior Staff of October 2022

CERTIFICATES

- 2024 : edX | Harvard University | Medical Courses on Topic ‘Lessons from Ebola: Preventing the Next Pandemic’
- 2024 : Stanford School of Medicine | Course on Topic ‘CSI:ME Case Studies in Medical Errors’

SKILLS

- **Software :** Microsoft Office, Draw.io, Canva, VN, Capcut, Picsart
- **Softskills :** Attention to Detail, Time & Task Management, Responsibility, Communication, Critical Thinking, Team Collaboration, Commitment
- **Language :** Indonesian (Native), English (Intermediate)