

AGUS FATURAKHMAN

082143773470 | agusfaturakhman33@gmail.com | www.linkedin.com/in/agusfaturakhman

Gresik, Indonesia

As a biology freshgraduate with strong experience in microbiology and biotechnology, I have developed technical competencies in microbial quality assessment and proficient in using analytical instruments such as UV spectrophotometer, HPLC, GC-MS, Thermal Cycler (PCR), and NanoDrop spectrophotometer through hands-on research experience. I am particularly interested in pursuing a career in quality control and research & development (R&D), especially within the manufacturing industry, where I can contribute to ensuring product quality, safety, and continuous innovation.

Pengalaman Kerja

Kementerian Perindustrian - Surabaya, Indonesia

May 2026

Quality Control - Intern

- 1. Conducted microbiological quality control analysis on drinking water and industrial products, including soap, dry food products, and other consumer goods.
- 2. Prepared and utilized multiple selective and differential media, including CCA, PSA, LB, PDA, Cetrimide Agar, and Yeast Extract Agar (YA).
- 3. Performed microbiological and confirmation test for key parameters such as Total Plate Count (ALT), Lactobacillus, Pseudomonas, Salmonella, E. coli, coliforms, and yeast & mold.
- 4. Independently handled the preparation, sterilization, inoculation, and incubation of approximately 60–120 Petri dish test media per session.

Ajinomoto Indonesia - Mojokerto Factory - Mojokerto, Indonesia

Feb 2026

Quality Control - Intern

- 1. Conducted daily quality control analysis on 72–106 raw material and finished product samples from Ajinomoto and Ajinex International.
- 2. Evaluated products across 4–6 critical quality parameters, such as TPC, Salmonella, Clostridium, Bacillus, Enterobacter, Yeast & Mold, and E. Coli.
- 3. Compiled and prepared comprehensive daily quality control reports in accordance with ISO standards and Ajinomoto Indonesia Standards (AJIS).
- 4. Performed chemical analysis using High Performance Liquid Chromatography (HPLC) and Gas Chromatography–Mass Spectrometry (GC-MS) to detect and quantify impurities in monosodium glutamate (MSG) products.

Petrokimia Gresik - Gresik, Indonesia

Jan 2026

Quality Control - Intern

- 1. Prepared, maintained, and scaled up 30+ microbial stock cultures under controlled conditions for Petrofish and Petrogladiator bioproducts.
- 2. Conducted daily microbiological quality control on bioproduct samples by inoculating, inspecting, and analyzing approximately 100–125 media per session to ensure product compliance with internal quality standards.
- 3. Performed chemical and biostimulant analyses by completing NPK UV-vis spectrophotometric testing on Phonska fertilizer and distilling temulawak (Curcuma xanthorrhiza) extract by contributing to 4 formulation trials for Petrofish product enhancement.
- 4. Assessed bioaerosol contamination within the microbiology laboratory by conducting Lactophenol Cotton Blue (LPCB) staining on airborne fungal samples collected from 10 rooms and 20 surface areas.
- 5. Performed Gram staining analysis on multiple laboratory zones and equipment surfaces by differentiating Gram-positive and Gram-negative bacteria.

PPSDM Migas - Cepu, Indonesia

Aug 2025

Quality Control - Intern

- 1. Conducted routine microbiological analysis on industrial water samples collected from four critical points, such as raw water, intermediate process water, final treated water, and bottled water, by analyzing microbiological parameters such as Total Plate Count (TPC), Coliform non E. coli, and fecal coliform E. coli using CFU, spread plate, pour plate, and membrane filtration methods with 5–7 replications.
- 2. Conducted routine chemical analysis on industrial water samples collected from four critical points, such as raw water, intermediate process water, final treated water, and bottled water, by analyzing pH, dissolved oxygen (DO), Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and total dissolved solids (TDS), as well as physical parameters such as turbidity with an average of 4 samples tested twice in a week with 3–5 replications.
- 3. Performed systematic water sampling using Stratified Random Sampling method.
- 4. Monitored and documented microbiological, chemical, and physical deviations, identifying early contamination risks in water systems and recommending corrective actions.
- 5. Report lab result using ISO-aligned documentation standards, contributing to internal audits and water safety compliance. Reports

were delivered with an average turnaround time of 24–48 hours post-sampling.

Department of Biology ITS - Surabaya, Indonesia

May 2025 - May 2026

Research Assistant

- 1. Assisted in the in-vitro culture of 5 different plant species (*Pogostemon cablin*, *Gynura pseudochina*, *Vanilla planifolia*, *Solanum lycopersicum*, *Rauvolfia serpentina*) using MS-based media variations and elicitor treatments, including Melatonin, PEG 6000, etc.
- 2. Maintained and monitored over 125 explants weekly in sterile conditions.
- 3. Performed extraction of plant secondary metabolites using a rotary evaporator and conducted qualitative and quantitative metabolite profiling through Gas Chromatography–Mass Spectrometry (GC-MS).
- 4. Conducted molecular biotechnology analyses on elicitor-treated explants by performing DNA amplification using a Thermal Cycler (PCR) and nucleic acid quality and concentration assessment using a NanoDrop spectrophotometer.

Jenang Pendidikan

Institut Teknologi Sepuluh Nopember - Surabaya, Indonesia

Aug 2022 - Aug 2026

Undergraduate Freshgraduate, 3.55/4.00

- 1. Award Recipient: Received over 10 awards in national and international scientific competitions.
- 2. Funded Projects: Secured funding for 4 scientific and social projects.
- 3. Skills Development: Focus on developing microbiological, chemical, and biotechnology analysis through hands-on training, instruments operating such as UV-Vis spectrophotometer, HPLC, GC-MS, and other.

Pengalaman organisasi

Society of Renewable Energy ITS SC - Surabaya, Indonesia

Sep 2023 - May 2025

Manager of Research & Competition

- 1. Led the Research and Competition Division consisting of more than 12 members to implement 16 major initiatives focused on renewable energy innovation and student scientific engagement during one term of leadership.
- 2. Successfully guided the SRE ITS research and competition team to achieve 25 podium wins in various regional and national-level competitions within a single organizational period.
- 3. Supervised the development and execution of 4 research-based projects by providing strategic direction to improve project quality and increase completion efficiency by up to 25%.

Asosiasi Peneliti Muda Indonesia (APMI) - Surabaya, Indonesia

Feb 2023 - Feb 2024

Research & Innovation Information

- 1. Managed and structured research-based content with 11 team members to support Gagasan APMI campaigns across Instagram (@apmi.id), LinkedIn, and Medium, contributing to content reach of over 5,000 Instagram accounts.
- 2. Led a team in reviewing and editing 15+ research-based articles, including scientific opinions, journal reviews, author highlights, and popular science content, while also authoring the opinion piece “AI Odyssey” and initiating the Call for Paper program that attracted 11 contributors (7 internal, 4 external) on environmental and technological issues.

Keterampilan, Prestasi & pengalaman lain

- Achievements** (2025): First Winner of Innovillage Project by Telkom Indonesia & Telkom University
- Achievements** (2024): Gold medal of national hackathon competition by ReachSci Indonesia
- Achievements** (2024): Silver medal on ReachInnovation Hackathon Global by ReachSci
- Achievements** (2024): Bronze medal of Bioinformatics Synthetic Biology Competition (BIOS) by Synbio Indonesia
- Achievements** (2024): Bronze medal on Brawijaya International Scientific Writing Competition
- Projects** (2025): Youth Green Hackathon by ChildFund Indonesia which consisting of three main events: reforestation, incubation, and exhibition.
- Projects** (2025): Innovillage by Telkomsel Indonesia: Microalgae-Based Air Purifier Integrated with Photovoltaic Cells: A Solution to Pollution and Health Issues for Smoked Fish Village Workers in Sidoarjo
- Projects** (2024): PLN CONNEXT by PLN Nusantara Power: Indoor air purifier system based on *Chlorella Vulgaris*
- Projects** (2024): Project Assistant: Utilizing PEG and SiO₂ Elicitors to Boost Essential Oil Production in Lavender and Peppermint: Integrating RAPD and SSR Techniques for Optimal Seed Selection
- Projects** (2024): PKM by Kemendikbudristek: Biofilter system utilizing *Nitrosomonas* and *Nitrobacter* bacteria to address the critical issue of high ammonia levels in milkfish (*Chanos chanos*) aquaculture
- Soft Skills**: Critical Thinking, Detail Oriented, Continuous Improvement, Teamwork, Work Discipline
- Hard Skills**: Raw Material, In-Process, and Finished Goods Microbiological & Chemical Analysis (COD, BOD, TSS, PH, DO, Gravimetry, and Moisture), Operation of Analytical Instruments (UV-Vis Spectrophotometer, HPLC, GC-MS, Nanodrop, Refractometer, and PCR Thermal Cycler), Good understanding about GMP, HAACP, CCP, ISO 9001:2015, ISO 22000:2018, and RCA.