

Fareza Hanafi

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PROFILE

An Freshgraduate of Agroindustrial Engineering at IPB University with a strong interest in pursuing a career in the fields of industry, processes, and bioprocess, who is also goal-oriented and efficient in their work. Has experience as a Process Engineering Intern in the palm oil industry, as a chemistry laboratory assistant and is actively involved in the Student Executive Board (BEM). Proficient in using Microsoft Office and Figma, and through these experiences and skills, has honed their abilities in data processing, management, communication, and teamwork.

EDUCATION

IPB UNIVERSITY – Bachelor of Engineering

Aug 2022 - Aug 2026

GPA 3.41/4.00

- Winning 2nd place in the pitch deck competition during the orientation event for new students in the study program.

PROFESSIONAL EXPERIENCES

DSM-FIRMENICH

Research and Development Intern

Feb 2026 – Jul 2026

- Conducted an industrial research project focused on optimizing the biodegradation of lignocellulosic agricultural waste using ligninolytic bacteria.
- Evaluated fermentation conditions to improve biodegradation efficiency and biomass digestibility.
- Performed laboratory analyses and statistical data analysis to assess process performance.
- Successfully achieved the targeted digestibility standard by reducing Acid Detergent Fiber (ADF) through bacterial fermentation, supporting the conversion of industrial by-products into value-added animal feed.

PT SALIM IVOMAS PRATAMA TBK

Process Engineering Intern

Jul 2025 – Aug 2025

- Monitored and interpreted process performance through key quality parameters to evaluate process stability and consistency.
- Analyzed whether the operating process was running within its capability based on observed quality indicators.
- Gained practical insight into industrial-scale palm oil processing and process control practices.
- Collaborated with process engineers to understand workflow, equipment operation, and quality assurance in refining and fractionation units.

IPB UNIVERSITY

Chemical Lab Assistant

Jan 2025 – Des 2025

- Provide guidance to students on laboratory procedures and safety.
- Guide students in conducting experiments and ensure that procedures are carried out in accordance with operational standards.
- Be responsible for the cleanliness and safety of the laboratory area before and after practical sessions.
- Assist in the evaluation of student practical reports.
- Be responsible for the safety of students during practical sessions.

ORGANIZATION EXPERIENCE

BEM KM IPB

Staff of Kesejahteraan Mahasiswa

Des 2024- Nov 2025

- Leading the implementation of two strategic activities: Forum Kesejahteraan Mahasiswa and Kesmah Visit, as a platform to absorb, discuss, and follow up on issues related to the welfare of IPB students.
- Managing the dynamics of discussion forums to generate concrete aspirations related to issues.

BEM FATETA (Fakultas Teknologi Pertanian)

Staff of Advokasi Kesejahteraan Mahasiswa

Jan 2024 – Nov 2024

- As project officer HiFi 2024: Lead and coordinate the entire program implementation process, from planning to final evaluation at
- Participate in organizing forums to gather feedback, conducting student needs surveys, and providing scholarship assistance and information programs.

E- summit IPB

Competition Staff

Apr 2023 – Sept 2023

- Served as a committee member for the competition division in the E-Summit, a national case competition focused on sustainable energy issues in Indonesia.
- Contribute to designing the competition flow, compiling competition guidelines, and organizing the selection and judging process.
- Be part of a team that encourages student collaboration in finding real solutions to national energy challenges.

PROJECT

Investigation Project

Aug 2025 – Dec 2025

Degradation of Glucomannan Granule Skin from Porang Tuber Using a Combination of Lytic Polysaccharide Monooxygenase (LPMO) and Disc Milling

- Investigated the degradation of porang granule skin using a combined enzymatic treatment with LPMO and mechanical processing via a disc mill.
- Analyzed the mechanism of enzymatic action and mechanical shear in improving granule skin breakdown and material accessibility.
- Evaluated process performance based on changes in material characteristics to assess the effectiveness of the combined treatment process.

System Analysis and Decision Making

Jan 2025 – Jun 2025

Design of Raw Material Procurement System Using ERP Odoo

- Designed an ERP-based procurement system for a fruit juice company
- Integrated Sales, Inventory, and Accounting modules in Odoo for seamless operations.
- Implemented an automated minimum stock alert feature to optimize purchasing decisions.
- Modeled end-to-end business processes using a microservices approach for scalability and efficiency.

Plant Layout and Material Handling

Aug 2024 – Dec 2024

Design of Apple Juice Factory Layout and Material Handling System

- Designed a production layout for converting fresh apples into bottled apple juice.
- Integrated value stream mapping and activity relationship diagrams to improve material flow and space efficiency.
- Conducted analysis on cycle time, efficiency, and total closeness rating for optimal facility arrangement.

Industrial Equipment and Machinery

Aug 2024 – Dec 2024

Design of Apple Juice Production Line and Machinery System

- Designed a complete apple juice processing line from raw material reception to final packaging using Tetra Pak.
- Conducted mass balance, energy balance, and machine capacity calculations for each processing stage.

Packaging Technology

Jan 2024- Jun 2024

KOSADU: Packaging Design for Instant Brew Sachet Coffee

- Designed functional and attractive packaging for single-serve, instant-brew coffee sachets.
- Focused on user convenience, visual appeal, and material efficiency.
- Conducted market research and consumer analysis to inform packaging development.

Operations Research

Jan 2024- Jun 2024

- Applied dynamic programming to optimize wood panel distribution routes to Tanjung Priok Port.
- Used Game Theory to analyze and design competitive marketing strategies in international media.
- Built decision models to minimize distribution costs and time.
- Simulated market competition scenarios for strategic promotion planning.

Milk Quality Prediction

- Processed and analyzed milk quality data based on sensory and chemical parameters
- Addressed challenges such as subjectivity of sensory data, inter-parameter interaction, and environmental influence on quality.

SKILLS & TOOLS

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| • Ms. Office | • Teamwork | • Canva |
| • Google Workspace | • Communication | • Figma |
| • Design | • Management | • Creativity |
| • Bahasa Indonesia (Native) | | • English
(Intermediate) |