

ABBILHAIDAR FARRAS ZULFIKAR

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A passionate Computer Science student who enjoys building useful software and learning new technologies. Experienced in backend development, machine learning, and search systems. Familiar with tools such as Python, Java, JavaScript, Spring Boot, React, and Django. Interested in solving real-world problems and working on meaningful projects in software engineering or data science.

EDUCATION

University of Indonesia

Bachelor of Computer Science

Aug 2022 - Jun 2026 (Expected)

Depok, Indonesia

- **Cumulative GPA:** 3.94/4.00 | [Transcript](#)
- **Relevant Coursework:** Introduction to AI & Data Science, Algorithms and Data Structures, Database, Platform-Based Programming, Machine & Reinforcement Learning, Information Retrieval, Deep Learning.

EXPERIENCE

Fullstack Developer Intern

PT Global Chemindo Megatrading

Aug 2025 - Jan 2026

Jakarta, Indonesia

- Developed a fullstack platform to automate purchase order (PO) processing from unstructured PDFs into structured transactions using OCR.
- Implemented an automated order processing system for major Pharma Group clients (e.g., Kalbe), integrating document extraction and approval workflows.
- Developed and optimized backend services using Node.js and PostgreSQL to support real-time transaction and shipment workflows.
- Integrated AI-based document extraction tools (e.g., AWS Textract, Tesseract) for smarter PO data conversion.
- **Tech Stack:** Node.js, React, JavaScript, PostgreSQL, AWS

Backend Engineer Intern

Videfly

Jun 2024 - Dec 2024

Jakarta, Indonesia

- Developed a backend system to transform JSON input into templated video advertisements, enabling users to generate videos by simply providing a product link (e.g., Tokopedia).
- Utilized FFmpeg and Canvas2Video for video generation, automatically incorporating desired images and AI-generated ad copy scraped from the provided links and implemented intercomponent communication and variable passing using Kafka.
- Successfully created more than 100 JSON templates for automated video generation, significantly expanding the platform's advertising capabilities.
- **Tech Stack:** JavaScript, FFmpeg, Canvas2Video, Kafka

Teaching Assistant

Faculty of Computer Science, University of Indonesia

Aug 2023 - Present

Depok, West Java

- Assisted over 100 students per semester across various courses by mentoring, evaluating, and facilitating practical understanding of theoretical topics.
- Developed lab modules, practical assignments, and quiz/exam problems tailored to course learning objectives and student progress, also graded and reviewed student submissions with detailed feedback.
- Led hands-on lab sessions and weekly discussions, ensuring clarity and engagement in complex topics such as digital circuits, platform-based systems, and AI fundamentals.
- Courses assisted: Digital Systems (Odd 23/24), Programming Fundamentals 2 (Even 23/24), Computer Organization (Even 23/24), Platform-Based Programming (Odd 24/25), Algorithm Design & Analysis (Odd 24/25), Introduction to AI & Data Science (Even 24/25), and Calculus II (Short 24/25).

PROJECTS

- **Talent Pool Rencanakan.id** | [Deployment Link](#) Feb 2025 - Jun 2025
 - Co-developed an innovative digital platform to connect professionals (Talents) with contractors for quick and efficient recruitment, serving as an online professional profile and job matching system.
 - Built the application with a five-person team using Agile Scrum methodologies, ensuring structured development and efficient collaboration.
 - **Features:** Talent profile management (CV, certifications, experience, rates), contractor search with filters, and direct WhatsApp contact integration.
 - **Tech Stack:** Spring Boot (Java), React, TypeScript, Vite, Vue.js
- **ESEMPEHA Search Engine** | [Repo Link](#) Apr 2025 - May 2025
 - Developed an advanced information retrieval system specialized for scientific facts, utilizing the BeIR/scifact dataset for accurate and relevant search results.
 - Integrated AI-generated summaries using Mistral-7B LLM for concise overviews across multiple relevant documents, enhancing information digestibility.
 - Built a responsive UI with Tailwind CSS and an extensive evaluation framework (precision, recall, F1, NDCG) for comparative analysis of search approaches.
 - **Tech Stack:** Django, OpenSearch, Sentence Transformers, Mistral-7B LLM, Tailwind CSS
- **Knowledge Graph Based Search Engine for Food Recipes** | [Project Link](#) Oct 2024 - Dec 2024
 - Developed a web application for international food recipe search, enabling users to find diverse recipes with detailed information (ingredients, cooking instructions).
 - Constructed a Knowledge Graph by transforming food recipe datasets into RDF format, leveraging Protege for ontology creation to define complex entity relationships within the culinary domain.
 - Enriched recipe data by integrating information from Wikidata and archanaskitchen.com, providing enhanced context and detail.
 - **Tech Stack:** Protege, RDF Graph, Wikidata, Django
- **SiBansos — UX Design Social Welfare App** | [Live Prototype](#) Jan 2024 - Sep 2024
 - Designed the user interface of SiBansos, a platform to streamline social aid distribution in Indonesia using AI and OCR.
 - Conducted comprehensive user research (surveys, interviews, personas) and followed the User-Centered Design (UCD) approach.
 - Created and iterated high-fidelity prototypes in Figma based on two rounds of SUS-based usability testing.
 - Project was selected as one of **20 national finalists out of 615 teams** at GEMASTIK XVII in UX Design category.
 - **Tools:** Figma, Google Forms, SUS Scoring, UCD Methodology

ORGANIZATIONAL EXPERIENCE

BEM Fasilkom UI

Vice President, Student's Career and Scholarly Development

Feb 2024 - Dec 2024

- Managed the Road to Champion program, collecting monthly student achievement data, publishing on BEM Fasilkom UI's Instagram, and distributing financial appreciation.
- Coordinated the Road to OIM program, recruiting and preparing Fasilkom UI student candidates for the 2024 UI Student Scientific Olympiad (OIM UI).
- Contributed to the development of a web-based platform idea for the Ajar.in program to facilitate mentor booking and payments, coordinating with the Business Bureau for technical implementation.

Staff, Student's Career and Scholarly Development

Apr 2023 - Dec 2024

- Created educational content for BEM Fasilkom UI's Instagram (e.g., on MBKM) and disseminated internship information to class groups.
- Supported student preparation for English Proficiency Tests (EPT) through collaboration with language institutions.

SKILLS

Programming Languages	Python, Java, SQL, JavaScript, TypeScript, Dart
Frameworks & Libraries	Spring Boot, React.js, Django, PyTorch, Pandas, NumPy, Scikit-learn
Tools & Platforms	Git, Figma, Kafka, Jupyter Notebook, Google Colab, Jira
Databases	PostgreSQL, MongoDB
Cloud & DevOps	Google Cloud Platform (GCP), Amazon Web Services (AWS), Firebase, Docker (basic)
Core Areas	Web Development (Frontend & Backend), Machine Learning, NLP, Information Retrieval, Data Analysis, Software Engineering
Design & UX	Wireframing, Prototyping, UCD, Usability Testing, SUS
Methodologies	Agile Scrum, Git Flow, Test-Driven Development (TDD)
Soft Skills	Problem Solving, Team Collaboration, Adaptability, Critical Thinking, Communication, Time Management
Languages	Indonesian (Native), English (Intermediate)