FEBRIAN IRVANSYAH

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SUMMARY

An undergraduate student who finds joy in product-minded engineering, comfortable thinking through problems, designing thoughtful solutions, and working closely with others to bring ideas to life. Deeply passionate about Computer Science, with specialization in full-stack software engineering with hands-on experience and a keen interest in ML/AI integration. Experience spans contributions at Sokratech and Suara Mahasiswa UI, applying technical skills and a product-minded approach to build solutions that address real user needs.

EXPERIENCE

Software Engineer Intern

Sokratech (Iterative S24) – Jakarta, Indonesia

(February 2025 - present)

- Built Know Your Business (KYB) system to support corporate due diligence and onboarding processes, optimizing existing document extraction by achieving 5x faster document extraction through parallel processing and enhanced accuracy for lengthy documents via chunking strategies.
- Designed and built a machine learning-based rules recommendation for fraud detection using Tree Ensemble models and developed a backtesting feature to compare workflow draft performance against real workflows.
- Enhanced fraud detection system powered by a rule engine utilizing React Flow for visual workflow drag-and-drop creation and improved validation performance by 80%.

Teaching Assistant of Advanced Programming

Fakultas Ilmu Komputer Universitas Indonesia – Depok, Indonesia

(January 2025 – June 2025)

- Assisted in teaching a class of 36 local and international students on software design principles, coding standards, testing, and monitoring.
- Providing constructive feedback for improvement for each assignment and project.
- Grading student assignments and projects to assess performance.

Web Developer

Badan Otonom Pers Suara Mahasiswa UI - Depok, Indonesia

(January 2024 – present)

- Maintained the Content Management System (CMS) and the frontend of Pers Suara Mahasiswa UI News website (https://suaramahasiswa.com/)
- Updated and improved the Next.js frontend, leveraging its React foundation for better performance and maintainability
- Managed deployments as well as the domain and DNS configurations.

Volunteer Backend Developer

DANAYA – Remote

(June 2024 – December 2024)

- Designed and developed an AI English learning chatbot service.
- Implement RAG techniques to improve the performance and accuracy of the AI.

Project Officer

Universitas Indonesia Goes to Riau 2024 – Riau, Indonesia

(November 2023 – February 2024)

- Led a 60-member organizing team to execute four large-scale educational events across Riau Province aimed to inspire and motivate students across Riau Province to pursue higher education and reach their academic potential.
- Raised Rp72 million of funds for operations and collaborated with key partners, including Pertamina, by.U, Indah Kiat Pulp & Paper, and the Pekanbaru City Government.
- Organized a province-wide roadshow to 42 schools across Riau and a main exhibition event that invited Universitas Indonesia stakeholders and the Ruangguru Clash of Champions winner.

EDUCATION

UNIVERSITAS INDONESIA (2022 - PRESENT)

Bachelor of Computer Science

Achievement

3rd Place Capture The Flag (Cyber Security), Pekan Ristek Competition, Universitas Indonesia

(December 2022)

- Focused on solving cryptography and forensics challenges.
- Created scripts and write-ups for the challenges.

PROJECTS

Universitas Indonesia Statistic and Quality Engineering Laboratory Website (September 2025 – October 2025)

- Implemented CMS with RESTful API architecture to support content delivery.
- Developed responsive UI components for courses, articles, and organizational information.

Culturate – Real-time Multiplayer and AI Culture Guesser Game | <u>LINK</u> (July 2025)

- Built a real-time media scraping pipeline that autonomously collects and curates Indonesian cultural content (traditional arts, regional cuisine, cultural sites, traditional clothing) from multiple sources.
- Integrated AI-powered image classification and validation using computer vision models to verify the authenticity and accuracy of cultural content.
- Implemented bidirectional WebSocket communication for media and player interaction to enable real-time multiplayer gameplay supporting player-vs-player and player-vs-AI game modes.

Lunara – AI-first Accounting and Financial Advisor for Indonesian Micro Scale Business | LINK

(May 2025 - July 2025)

- Built an accounting system with cashflow tracking and inventory management specifically made for Indonesian micro-scale businesses.
- Engineered system to identify cost optimization, actionable recommendations, and an interactive analytics dashboard featuring 10+ financial KPIs with customizable date ranges, analyzes business performance metrics.
- Enabling users to generate dynamic charts and financial reports through conversational commands.

Universitas Indonesia Goes to Riau 2025 Website & AI Chatbot | <u>LINK</u> (June 2024 – January 2025)

- Deployed an AI chatbot using Retrieval-Augmented Generation (RAG) to answer complex queries about university programs, admission requirements, and event schedules
- Built an information retrieval system using a hybrid approach combining sparse retrieval and dense retrieval for optimal accuracy for the RAG.
- Built a complete deployment CI/CD pipeline on Google Cloud Platform with Docker containerization, Cloud Run for serverless auto-scaling.

Farrel Website

(February 2024 - May 2024)

- Built microservice-based backend using Spring Boot with RESTful API design, implementing separate services for user authentication, product catalog, shopping cart, order processing, and payment handling.
- Implemented SOLID principles and Test-Driven Development (TDD) throughout the codebase.

Tales and Tails Cafe Web and Mobile App

(August 2023 - Dec 2023)

- Built a Django and Flutter appfor a cat-themed reading café with dynamic book library management and multi-tier role-based authentication controlling user, staff, and admin privileges.
- Implemented RESTful API layer serving both web and mobile clients with JSON response formatting and Django ORM for database management.

OTHER EXPERIENCES

| • Head of Photography– Pers Suara Mahasiswa UI | 2024 |
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| • Head of Student Creations – Ikatan Mahasiswa Riau UI | 2023 - 2024 |
| • Finance Staff – PERAK Fasilkom UI | 2023 |
| • Documentation Staff – <i>EDUCARE Fasilkom UI</i> | 2023 |

SKILLS

Technical Skill:

- **Programming Language:** Python, Golang, Java, TypeScript
- Web Development: HTML/CSS, Django, FastAPI, Node.js, Tailwind
- Database Management: Relational Database, PostgreSQL, MySQL