

Rayhan Firdaus Ardian

Sleman, Yogyakarta • (+62) 87810800717 • rayhanardian045@gmail.com • [LinkedIn](#) • [Portofolio Web](#)

EXPERIENCE IN INFORMATION & TECHNOLOGY

- | | | |
|------|--|--------------------|
| 2025 | SOFTWARE ENGINEERING PROJECT COURSE <i>5th Semester Course – Project Manager</i> <ul style="list-style-type: none">• Led a 35-member cross-functional class project to develop a “Sistem Keuangan Desa”, coordinating five development teams, Backend Architects, and Business Analysts.• Defined the overall project timeline, milestones, and sprint goals.• Facilitated Agile development through weekly sprint meetings, real-time communication via Whatsapp and Google Workspace.• Managed task tracking and documentation using Notion, Linear, and Google Workspace, while overseeing repository organization and code delivery on GitHub.• Ensured smooth knowledge transfer and accountability across all development teams.• Addressed major project challenges involving scope changes, communication gaps, and skill disparities through good planning and adaptive leadership. | Sleman, Yogyakarta |
| 2025 | SOFTWARE ENGINEERING & DATA LABORATORY 2025 <i>Research Project</i> <ul style="list-style-type: none">• Implemented a Multi-Agent RAG system using LangChain, ChatOpenAI, and three graph-based backends: Neo4j (Cypher), Neo4j + Vector Search, and GraphDB (SPARQL using Virtuoso).• Designed an evaluation pipeline comparing each agent’s response accuracy on 5 cybersecurity queries, using MITRE ATT&CK as ground truth reference• Contributed to a research paper accepted for publication at the RAGE Workshop, International Semantic Web Conference (ISWC) 2025, to be presented in Nara, Japan (Nov 2–6, 2025). <i>Community Engagement MTA Gunung Kidul</i> <ul style="list-style-type: none">• Designed and deployed a Looker Studio dashboard to visualize attendance data across 14 MTA branches.• Integrated the dashboard with Google Sheets to display real-time attendance from Google Forms.• Introduced data visualization concepts to non-technical community stakeholders. | Sleman, Yogyakarta |
| 2025 | FINALIST GEMASTIK COMPETITION 2025 <i>Smart Device, Embedded System & IoT – Fullstack Web Dev & Cloud Engineer</i> <ul style="list-style-type: none">• Built an intelligent “knalpot brong detection system” integrating IoT sensors, embedded devices, and cloud-based automation.• Engineered the fullstack web platform using React.js (Vite) and TailwindCSS, enabling real-time monitoring.• Developed and deployed backend infrastructure on Firebase and Google Cloud, leveraging Cloud Functions, Firestore, and Cloud Storage for event-driven video processing and data management.• Integrated an ML-powered license plate extraction model via Google Cloud Run.• Designed seamless communication between SBC devices (Raspberry Pi) and cloud services.• Facilitating automatic upload and trigger-based (event-based) data flow.• Collaborated within a 3-member multidisciplinary team covering IoT hardware, ML modeling, and cloud software. | Sleman, Yogyakarta |
| 2025 | GELANGGANG EXPO UGM 2025 <i>IT Division – Frontend Web Developer</i> <ul style="list-style-type: none">• Built the Geleverse mini-game and an interactive “UKM Apakah Aku?” quiz page using Next.js, TypeScript, React, and Tailwind CSS, architecting all UI as modular, reusable components.• Framer Motion animations library is used for smooth state transitions between quiz questions and results.• Optimized asset delivery by converting images to WebP and applied React hooks (useMemo, useCallback) to improve load performance.• Collaborated closely with UI/UX designers (Figma) and other Frontend teammate, managing code via GitHub and a Agile workflow to ensure on-time feature delivery. | Sleman, Yogyakarta |
| 2025 | GOOGLE DEVELOPER GROUP ON CAMPUS (GDGOC) 2025 | Sleman, Yogyakarta |

Hacker (Fullstack Developer)

- Participated in a 6-month community development program focused on fullstack web engineering and collaborative coding practices.
- Built a complete **Expense Tracker App** as a mini-project, designing ERD, implementing authentication via **Clerk**, and deploying a fully functional frontend–backend system.
- Developed over 80% of features for a **Health Tracker Web Platform** for diabetes monitoring, including homepage, article listing, input forms, and time-series data visualization.
- Translated UI/UX designs into responsive interfaces using **Next.js 14**, **TailwindCSS**, and **Shadcn UI**.
- Containerized and deployed the fullstack project using **Docker**.
- Collaborated within a 4-member cross-disciplinary team (BA, Fullstack, UI/UX, ML Engineer).

2024-Present **OMAHTI**

Sleman, Yogyakarta

Head of Research and Competition Managerial Division (2025)

- Led a 4-member division responsible for managing research, competition, and internship information channels within the organization.
- Established dedicated communication groups for competitions, workshops, interns, and research initiatives.
- Coordinated the publication of **OTIChamp**, a recognition initiative highlighting internal competition achievements, in collaboration with the Content and Design division.
- Supported the mentoring process for **GEMASTIK** competition participants, helping prepare teams for national-level challenges.

Teaching Assistant Software Engineer at OmahTI Academy Event (2025)

- Co-led an 8-day Software Engineering bootcamp for 30 participants, delivering 5 teaching sessions and 1 consultation day focused on backend fundamentals and real-world project implementation.
- Taught key engineering concepts including **SDLC**, version control with **Git & GitHub**, authentication using **sessions and Redis**, and database interaction via **Prisma ORM**.
- Designed and presented structured live coding sessions using **Next.js**, **TypeScript**, and **Docker**.
- Provided one-on-one mentoring and troubleshooting support during and after sessions to help students overcome technical challenges and solidify understanding.
- Evaluated and reviewed participants' final projects, giving constructive feedback.

Instructor Class Web Developer at OmahTI Academy Event (2025)

- Designed and delivered a **6-day, 12-hour** Web Developer bootcamp for **30** participants, covering HTML5 semantics, CSS fundamentals, JavaScript & DOM, and React.
- Authored **4 comprehensive modules** (>200 pages) on HTML, CSS, JavaScript, and React concepts.
- Led interactive live-coding sessions via **Zoom**, guiding students through building a complete React-Tailwind to-do app and portfolio project.
- Delivered targeted Q&A support, resolving 6+ individual queries and fostering peer discussion in a dedicated group.

2024

MALPRES MIPA 2024

Sleman, Yogyakarta

IT Division – Frontend Web Developer

- Developed and deployed the **Next.js** landing page and nomination/voting platform, handling deployment and custom domain setup.
- Built an interactive nomination list with **Google Sheets API** integration, enabling **469+ FMIPA members** to cast votes seamlessly.
- Collaborated with UI/UX designer and backend engineer using **GitHub** and **Figma**, aligning design and data flow for a cohesive product.

EDUCATION

2023-Present **UNIVERSITY OF GADJAH MADA**

Sleman, Yogyakarta

Undergraduate Computer Science Student, GPA 3.83/4.0

- Relevant coursework: Software Engineering Methods; Scalable Software Development; Software Design Implementation Workshop; Cloud Computing; Databases; Algorithms & Data Structures; Web Semantics; Blockchain; Information Retrieval; Cryptography and Information Security; System and Cyber Security; Software Engineering Project

COURSES

THE WEB DEVELOPER BOOTCAMP

74 Hours, Udemy – Colt Steele

- Certificate No: UC-3510ecac-63fb-428e-8706-3ed76fe951f8

[PAKET ALL-IN-ONE] – PENGUASAAN PENGEMBANGAN WEB BACKEND: 7 PROYEK DENGAN JAVA/SPRING

38/60 Hours, Udemy – Ganis Zulfa Santoso, Elan Qisthi, Dery Rahman Ahaddienata

- Certificate No: <inprogress>
-

OTHERS

| | |
|-----------------------|---|
| Languages | Indonesian (Native), English (Okay) |
| Programming Languages | JavaScript, TypeScript, Java, Python |
| Frontend Tech | React.js, Next.js, TailwindCSS, Shadcn-ui, Zustand, Tanstack Query, Zod |
| Backend Tech | Springboot, Node.js, Express.js, FastAPI, PostgreSQL, MySQL, Flyway, PrismaORM, Alembic, Neo4J, GraphDB, Docker |
| QA Tech | JUnit, Jest, Mockito |
| Cloud Tech | Google Cloud Platform: Cloud Run, Compute Engine, App Engine, Cloud Run Function, Firebase |
| Others Tech | Github, Linear, Notion, Google Workspace, LaTeX, DBeaver, Docker Desktop |
| Domains | Software Engineering, Knowledge Graph |