Muhammad Ra'if Alkautsar

+6283865693142 – mraifalkautsar@gmail.com – github.com/mraifalkautsar
https://www.linkedin.com/in/mraifalkautsar/ – Portofolio Site: https://mraifalkautsar.github.io

Summary

Fifth-semester Informatics Engineering student at Institut Teknologi Bandung (B.Sc. expected 2027) experienced in developing websites and applications. Fast learner with great interest in software engineering. Passionate and eager to take on challenges in dynamic environments.

Organizational Experiences

Ganesha Interactive Media (GIM) ITB – *Game Development Club*

GIMWeb Staff (2025 – Present)

- Develop the club's website using Next.js, Tailwind, and Storyblok CMS, building various frontend components such as organogram, user registration, user lists/details.
- Integrate developed frontend components with backend.

Programming Clan Staff (2025 – Present)

- Execute various programming-related programs, such as
  - GIMWeb,
  - Discussing Programming Systems (DPS), a program that gathers members to discuss various programming concepts and paradigms,
  - and the supervision of Programming Clan internship participants

Head of Subject and Methods Division for GIM Apprenticeship 2024 (2024 – 2025)

- Led the development of educational materials and coordinated various divisions for GIM Apprenticeship 2024, an onboarding and admission program for new members with over 200 eager participants.
- Designed and wrote curriculum and handbook for trainers and mentors.

Genshiken ITB – *Pop Culture Enthusiast Club*

IT Staff (2024 – 2025)

- Takes part in the management of the database for GenFinder feature on Genshiken website, a feature for searching member data across all generations.

The Sandbox 2023 IEEE ITB Student Branch

UI/UX Designer (2023 – 2024)

- Designed various UI/UX prototypes and pages for the event's website using Figma.

Education

Institut Teknologi Bandung (2023 – Present)
Informatics Engineering (Computer Science)
GPA   : 3.59

Relevant Projects

Album Finder Website

- *Technology Stack:* React, Tailwind, Flask, Python
- *Description:* An image/audio processing website to find similarities between a queried image or audio with the files in the dataset.
- Implemented frontend UI and developed RESTful API endpoints in Python backend for querying and uploading files, ensuring thorough documentation in the project's final report.
- Managed query, dataset, and mapper files using Python's shutil library.
- Developed JSON parsing scripts to map images of albums or songs with their corresponding audio files.

Little Alchemy 2 Recipe Finder

- *Technology Stack*: React, React-D3, Go, Docker
- *Description:* A website to search for the recipe tree of the game Little Alchemy 2 using depth-first search and breadth-first search algorithms.
- Built a clean React architecture and UI with dynamic data fetching & streaming.
- Implemented interactive tree visualizations using React-D3 and EventSource to dynamically display real-time backend processing results.
- Built backend APIs to parse query parameters and facilitate depth-first and breadth-first search algorithms.
- Wrote a comprehensive final report that documents the API endpoints and website architecture.

GrocerEase

- Technology Stack: ElectronJS, React, SQLite
- Description: A desktop application for the management of stores and small enterprises.
- Developed and styled an intuitive inventory management interface using Tailwind.
- Implemented advanced data filtering with JSONPath on an in-memory database.

GIMWeb

- Technology Stack: TypeScript, Next.js, Storyblok, Tailwind
- Description: A website for the university's game development club, Ganesha Interactive Media ITB.
- Built and styled the organogram section of the website.
- Built user registration, list, and detail pages, integrating frontend components with backend APIs (OpenAPI).

Genshiken Website

- Technology Stack: React, Next.js, Tailwind
- Description: A website for the campus pop culture club, Genshiken ITB.
- Maintained GenFinder, a feature of the website that retrieves Genshiken member data from Google Sheets.

Skills

Programming Languages
C, C#, C++, Go, JavaScript, PHP, Rust, Java, Python, SQL
Frontend & Web
HTML5, CSS3, React.js, Electron.js, Tailwind, Bootstrap
Backend & DevOps
Node.js, Docker, Vercel
Documentation & APIs
OpenAPI (3.0), Markdown, YAML, LaTeX
Databases
MySQL, MariaDB
Dev Tools & Workflow
Git, GitHub Actions, Node.js, npm/Yarn
Other Tools
Adobe Photoshop, Unity
Languages
English (proficient), Indonesian (native)