Dhafin Fawwaz Ikramullah
Software Engineer | Game Developer

Work Experience – Every Paid Work Experiences.

- **Memento** - [2025]
  Freelance Software Engineer for a Photobooth App with Video Editing feature, Payment Gateway, Printer & Camera integration, with Website, Backend Server & Database, and Gmail Notification.
- **Programing Lab Asistant ITB** - [2024]
  Programming laboratorium Asistant for ITB.
- **Rolling Glory Jam** - [2024]
  Internship Software Engineer for Computer Vision, shader creation, with Unity Engine & PhaserJs.
- **Dewi Sri** - [2024]
  Freelance programmer for a storybook game.
- **Kinnaria** - [2024]
  Freelance programmer for a rythm game.
- **Kirana dan Laplip** - [2023]
  Freelance programmer for a storybook game.
- **Legend of Tampoemas Mountain** - [2022]
  Freelance programmer for a storybook game.
- **Flavy** - [2021]
  Freelance programmer for a visual novel game.

Skills – Framework/Library/Tools I've used and good at

- **Game Development**
  Unity Engine, C#, HLSL/ShaderLab, PixiJs, PhaserJS.
- **Web Development**
  NextJs, Django, Fiber, SvelteKit, ReactJs, Tailwind, Flask, D3, ExpressJs, Vite, SQLite, MySQL, PostgreSQL, MongoDB, Redis, NodeJs, ThreeJs, Socket.io, k6, PHP, Docker, HonoJs, Storyblok, Vercel, Supabase, OpenAPI/Scalar, AWS, Coolify
- **Mobile Development**
  Flutter, Dart, Firebase, React Native, Unity.
- **Desktop Development**
  Tauri, Rust, .NET, Unity, FFMPEG, Qt, Unity, Python, Java.
- **Operating System Development**
  C, Assembly, Qemu, Linux, Virtual Box.

Volunteer Works – My volunteer works

- **Speaker for GIM Apprenticeship 2024 Day 0**
  Talk about Game Development and its career.
- **Speaker for SPARTA HMIF**
  Talk about Game Development and its career.
- **Introduction to Computer Science Tutor GAMAIS**
  Tutor for exam for a another Organization.
- **Web Based Development Tutor HMIF**
  Tutor for exam in Student Association in my major.

Contact/More Info

- Website: https://dhafinfawwaz.com
- Github: https://github.com/DhafinFawwaz
- Linkedin https://linkedin.com/in/dhafinfawwaz/
- Whatsapp: +628116292109
- Gmail: dhafin.fawwaz@gmail.com
- Instagram: @dhafin_fawwaz
- Discord: kitkatmt

Education – The Education I've pursued

- **Bandung Institute of Technology (ITB)**
  Informatics | 6th Semester | Current GPA 3.77/4.00.

Achievement/Awards – Big Achievement in my Journey

- **Most Outstanding Informatics Student ITB** - [2025]
  Based on best awards, organizational involvement, excellent grades among all informatics students of batch 2022.
- **1st Winner Gemastik XVII** - [2024]
  Biggest National Game Dev Competition issued by Ministry of Education and Technology attended by 206 Universities.
- **Ganesha Award (Ganesha Karya)** - [2024]
  Award for studentss with outstanding achievement and exceptional work.
- **Finalist IT Fest 2024** - [2024]
  National level Software Development Competition issued by Padjajaran University.
- **Finalist Gemastik XVI** - [2023]
  National level Game Development Competition issued by The Ministry of Education and Technology.
- **2nd Winner of Game Dev MAGE 7** - [2021]
  National level Game Development Competition issued by Sepuluh Nopember Institute of Technology.

Organization – Activities througout my journey

- **Head of Programming at GIM ITB**
  Lead GIM Website Development, share programming knowlede for an organization about gamedev in ITB.
- **Treasurer at GIM Jam 2025**
  Manage Finance & do External Relation work to contact and coordinate the speaker for the awarding event.
- **Head of GameDev Committee at Pra-Gemastik ITB**
  Selection of ITB representatif for Gemastik with Himpunan Mahasiswa Teknik Informatika (HMIF).
- **Vice Head of Research & Development at GIM**
  Share research, competition, and manage team project for An organization about game development in ITB.
- **Head of New Member Admission at GIM ITB**
  6 months process of new member selection for GIM Apprenticeship 2023.

Favorite Technical Projects – Some of my Favorite projects. More info at https://dhafinfawwaz.com/#project.

- **AnimationUI** - [Unity Engine, C#]
  Open source Motion/Tweening Tool/Library with Visual Editor for Unity Engine, **+500 stars** on Github.
- **Pace Break** - [Unity Engine, C#, HLSL]
  Fast platformer combat, Hollow Knight inspired Game, with observer, state machine, Shader based VFX, etc.
- **Bezier Curve Generator** - [PixiJs, Vercel, Tailwind]
  Interactive Visualized & Animated Bezier Curve Generator Website with DnC & Brute Force Algorithm.
- **Film Store** - [Django, Docker, Tailwind, Playwright, Javascript]
  Ecommerce website about buying film with caching, database, polling, automated End to End testing, etc..
- **GIM Website** - [NextJs, Storyblok CMS, OpenAPI]
  Lead Software Engineer for an Organization Website, integrated with my Custom Open API Library for NextJs, Storyblok CMS, Database, Prisma ORM, etc.

- **Memento** - [Tauri, Rust, Next.js, FFMPEG, Supabase, Vercel]
  Photobooth Desktop App with video editing, Payment Gateway, Printer & Camera integration, with Website, Backend Server & Database, and Gmail Notification.
- **SiAbsen** - [Inngest API, NextJs, ExpressJs, Vercel, PostgreSQL]
  Notification bot website for student attendance presence with Scheduler, Cron Job, Authentication.
- **Ocular** - [NextJs, Django, C, SQLite]
  Content-based Image Retrieval with web scrapping, multiprocessing, backend server, and database.
- **Linkinpurry Social** - [Socket.io, Hono, Vite, React, Swagger]
  Social Media Website with realtime chat, database, k6 load test, OpenAPI docs with Swagger, etc.
- **Magic Cube Solver** - [ThreeJs, Vite, Tailwind]
  AI Algorithm like Genetic, Simulated Annealing, Stochastic Hill Climbing, etc. with 3D Animated Visualization.

Grouped Technical Projects

Visualized Solvers with Website/Desktop App

- **Wikirace Solver** - [PixiJs, Go, Fiber]
  Wikirace solver with nodes visualization with webscrapping & multithreading using Breadth First Search Algorithm and Iterative Deepening Search Algorithm.
- **Breach Protocol Solver** - [C++, Qt]
  Cyberpunk 2077 Breach Protocol solver and its Visualization implemented with Brute Force algorithm.
- **Plagiarism Checker** - [Next.js, React]
  Plagiarism Checker for large amount of research paper with W-Shingling, N-Grams, KMP, and BM algorithm.
- **Linear Equation System Matrix** - [Java]
  Java Swing Desktop App to implement Linear Equation System such as Gauss-Jordan Elimination, Cramer's Rule, Multiple Linear Regression, Polynomial Interpolation, Image Enlargement Interpolatuion.

Unity Custom Library/Package/Tools

- **VFX Mesh Generator** - [Unity Engine, C#]
  3D Mesh Generator for VFX creation with shader.
- **Reusable FSM with Editor** - [Unity Engine, C#]
  Implementation of Finite State Machine pattern but reusable in Unity including a visual editor.
- **HitBox System with Editor** - [Unity Engine, C#]
  Flexible Hitbox system with visualization and easy edit integrated with the builtin animation system.
- **Very Optimized Coins Shader** - [Unity Engine, HLSL]
  Thousands of coins with variated jump phase, flipbook animation, jump height, etc. rendered in only 1 batch.

Mobile Development

- **Expiration Reminder** - [Flutter, OpenAI API, MongoDB]
  Reminder Mobile app with QR Code integrated with OpenAI API for auto-generated description.

Desktop Development

- **Le Mari** - [Python, Flet, SQLite]
  Desktop App to Manage Outfits with tagging system.
- **Farmer Rancher Mayor Simulator** - [C++, Qt]
  Desktop App to simulate farmer, rancer, and mayor.

Web Development

- **Auth Template** - [NextJs, Django, Express, Go,Fiber, Laravel]
  Auth implementation with various frameworks.
- **Ecommerce Book** - [Django, Javascript, SQLite, Boorstrap]
  Ecommerce website for buying books with SQLite Database, with boothstrap for styling.
- **Linkinpurry Jobs** - [PHP, Javascript, Docker, Apache]
  Linkedin copy Website with file upload, connection request sytem, authentication, etc.
- **RangkiangForm** - [Spreadsheet API, ReactJs, ExpressJs]
  Form with spreadsheet API for Coffee Company.

OS Development

- **OsLahPokoknya** - [C, Assembly, Qemu]
  Operating System written in C & Assembly with File System, Shell, Multiprocessing, Context switch, etc.
- **TCP Over UDP** - [C++. Linux, Virtual Box]
  TCP implemented over UDP with Sliding Wind, Checksum algorithm, Retries, and Multiplexing.

Game Development

- **Financial Streams** - [Unity Engine, C#, HLSL]
  Management, Finansial Lieteracy, Streamer Simulation, RPG game winning 1st place in Gemastik XVII 2024.
- **Functional Defense** - [Unity Engine, C#, HLSL, Blender]
  Gamification of Math function/curve. Gemastik XVI Finalist.
- **HexaTap** - [Javascript, PixiJs, Firebase]
  A fun and fast paced tapping web game.
- **Leapy Leapy Fishy** - [Unity Engine, C#]
  3D Game, Won 2nd place in Game Development competition issued by Sepuluh Nopember Institute of Technology.
- **VFX-Shader Collection** - [Unity Engine, C#, HLSL]
  3D Game, Won 2nd place in Game Development competition issued by Sepuluh Nopember Institute of Technology.
- **Project Arthur** - [Unity Engine, C#, HLSL, Blender]
  Hack & slash, Rougelike top down game implementing state machine, observer, object pooling, etc.
- **Grappler Crashers** - [Unity Engine, C#, HLSL]
  Unique hypercasual game with creative mechanic and physics. Implemented pattern like state machine, singleton, etc. It wins 1st place on internal GIM event.
- **Cube Associator** - [Unity Engine, C#, HLSL]
  Chaotic merging game for submission in GMTK Game Jam.
- **Clustered Chaos** - [Unity Engine, C#, HLSL]
  Creative game winning 2 category on GIM Jam 2023.
- **Flavy** - [Unity Engine, C#, HLSL]
  A visual novel game to introduce the campus branch of Bandung Institute of Technology.
- **Legend of Tampoemas Mountain** - [Unity Engine, C#]
  Story book game about the Tampoemas Mountain.
- **Kirana & Laplip** - [Unity Engine, C#]
  Story book game about Kirana & Laplip.
- **Dewi Sri** - [Unity Engine, C#, HLSL]
  Story book game about Dewi Sri.
- **Kinnaria** - [Unity Engine, C#, HLSL]
  Rythm game telling about story of Kinnaria.
- **Snake 4D** - [Unity Engine, C#, HLSL]
  4D Snake game getting **+5000 installs** when i'm a beginner.

Summary

- Software Engineer, Indie Game Developer for fun, a particle vfx & shader enthusiast, and a math enjoyer.
- Current main specialities are Web, Game, and Backend Development
- Published a game with **+5000 installs**
- Wrote a library/tool with **+500 stars** on Github
- **1st place** GEMASTIK GameDev XVII
- Worked inside and led teams on multiple projects.