

Muhammad Hilmi Adzkia

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Experiences

Mobile Developer

LeafCheck (February 2025)

- Develop a mobile application to detect tree health through leaf photos based on Android using Kotlin and Android Studio.
- Design an intuitive and user-friendly interface based on UI/UX principles.
- Implemented Google authentication, tree data management, and tree health monitoring features with Firebase Firestore.
- Collaborate with the team to connect the application with machine learning-based APIs.

Mobile Developer

PerpusHub (October 2024 – December 2024)

- Develop an application to organize PDF books using Java and Android Studio.
- Develop authentication features using Google and Firebase Authentication.
- Implement CRUD feature for book management in the application.

Cloud Engineer

LeafCheck (February 2024 – June 2024)

- Develop an API that connects machine learning models with web applications to detect diseases in apple, mango, and orange trees.
- Using Postman to ensure the API runs optimally and stably.
- Deployed the API using Google Cloud Run to ensure scalability and good performance.

Game Developer

KanaGames (January 2023 – June 2023)

- Collaborate in a team to develop a mobile-based Japanese educational game using Construct 3 Game Engine.
- Integrate game assets and implement interactive logic according to the design.
- Design and implement mini-games such as matching cards and multiple-choice questions to train players' Japanese language skills.

Staff IT Developer

Digital Creative, Raden Patah Mosque UB (July 2023 – July 2024)

- Develop the front-end of the mosque website, especially the footer section using Laravel.
- Design and implement the login and register pages using Figma.

Practicum Assistant

Faculty of Computer Science, Brawijaya University (February 2023 – July 2024)

- Guided 28 students majoring in information technology in the practicum of advanced programming courses in 2022/2023 even semester. The material of the course consists of OOP, tree, list, stack, and class using the Java programming language.
- Supervised 37 students majoring in information technology education in the practicum of algorithm and data structure courses in 2023/2024 odd semester. The material of the course consists of trees, lists, stacks, and classes using the Java programming language.
- Supervised 27 students majoring in information technology education in the practicum of learning game development courses in 2023/2024 odd and even semesters. The material of the course consists of sprites, movement, heads up display, score, and others using the Construct 3 game engine.

Teacher at Vocational High School 2 Malang

Vocational High School 2 Malang (August 2024 – December 2024)

- Taught three classes of TJKT major in PLP 2 program.
- Participated in a Lesson Study with a master teacher and lecturer with positive evaluation results.

Teacher at Vocational High School 3 Batu

Vocational High School 3 Batu (May 2024)

- Conducted research using the SVVR Two-tier Feedback method to improve student learning outcomes in the classroom.
- Taught more than 60 students in Computer Network and Telecommunication Engineering.

Head of PTQ Tahfidz Graduation Multimedia Coordinator

Pusat Tahfidz Al-Quran Masjid Raden Patah UB (January 2023 – April 2023)

- Led the multimedia team in the Tahfidz Graduation event, focusing on efficient task distribution based on team members' expertise.
- Developed a structured task management system using Google Sheets, including: Assigning the person in charge. Setting deadlines for submission. Provision of clear task details. File link management and sharing.
- Conduct regular monitoring of each team member's progress, ensuring the quality and timeliness of task completion.
- Establish effective communication and coordination with the chief executive and other divisions to ensure the smooth running of the event.

Vice Chairperson Multimedia Tahfidz Camp Coordinator

Pusat Tahfidz Al-Quran Masjid Raden Patah UB (December 2022 – January 2023)

- Support the chief coordinator in carrying out the tasks of managing and implementing multimedia activities.
- Produce high-quality visual designs using Figma and Canva for various event needs.
- Collaborate with the Raden Patah Mosque Instagram team in planning and implementing event publicity through social media.

Secretary of Education Division

Pusat Tahfidz Al-Quran Masjid Raden Patah UB (January 2022 – June 2023)

- Support the department chair in the administration and implementation of educational programs.
- Take notes and document key points during meetings, ensuring accurate and easily accessible information.

Documentation Design and Multimedia Eduaction Staff

Keluarga Besar Mahasiswa Departemen Sistem Informasi (September 2022 – November 2022)

- Design and develop visual design materials, including banners, Instagram posts, virtual backgrounds and more, to support activities.

Documentation Design and Multimedia Genesis 8.0 Staff

Keluarga Besar Mahasiswa Departemen Sistem Informasi (September 2022 – November 2022)

- Contribute to the creation of visual designs for Genesis 8.0 events, including banners, Instagram posts, virtual backgrounds, and room decorations.

Certificates

Problem Solving (Basic)

HackerRank (01 October 2022)

- Obtained the Problem Solving (Basic) certification from HackerRank, which proves the ability to solve basic algorithm and data structure problems within a time limit of 1 hour 30 minutes using the Java programming language.
- Master the basic concepts of Data Structures (Arrays, Strings) and Algorithms (Sorting, Searching), which are important foundations in software development.

Java (Basic)

Hackerrank (28 July 2022)

- Earn a Java (Basic) certification from HackerRank, demonstrating a basic understanding of the Java programming language in solving problems within 1 hour and 30 minutes.

- Master basic Java programming concepts, including classes, data structures, inheritance, and exception handling, which are essential skills for Java application development.

Cloud Computing Cohort

Bangkit Academy (February 2024 – June 2024)

- Complete the Merdeka Belajar Kampus Merdeka (MBKM) program at Bangkit Academy 2024, with a focus on Cloud Computing.
- Gained in-depth knowledge of Cloud Computing, including network basics, cloud concepts, and the use of Google Cloud Platform (GCP) for API implementation.
- Collaborated in a team of 2 to develop a working API for a leaf disease detection application. This API connects the application interface with the Machine Learning Model for detecting leaf diseases on Apple, Mango, and Orange plants. This shows the ability in API development, and teamwork.

Projects

LeafCheck

Bangkit Academy 2024 (February 2024 – February 2025)

- Developed LeafCheck application, an application integrated with Machine Learning models to detect diseases on plant leaves (apple, mango, and orange).
- This project is a development of a college project in Bangkit Academy 2024, demonstrating the ability to apply Machine Learning in practical solutions.
- Demonstrate the ability to deploy an API, to connect the application with the Machine Learning Model.

KanaGames

Faculty of Computer Science, Brawijaya University (January 2023 – June 2023)

- Created KanaGames, an HTML-based educational game that can be accessed on various platforms.
- This project was developed for Learning Game Development and Learning Media Interaction Design courses.
- Designing a 2D RPG genre game with various interactive mini-games to facilitate learning Japanese characters in a fun way.
- Demonstrate the ability to design a web-based game, and also the ability to design learning media.

PerpusHub

Faculty of Computer Science, Brawijaya University (October 2024 – December 2024)

- Collaborated in a team of 3 to develop PerpusHub, a mobile app to organize PDF book collections through links.
- This project is the final project of the Mobile Application Development course, demonstrating proficiency in mobile application development.
- Demonstrate the ability to work in teams, in developing mobile applications.

Educations

BRAWIJAYA UNIVERSITY (Oktober 2021 – Januari 2025)

Information Technology Education Study Program – 3,76

Skills

- **Mobile Development** (Kotlin, Java, Android Studio)
- **Cloud Computing** (Google Cloud Platform, Cloud Run)
- **Game Development** (Construct 3 Game Engine)
- **Programming** (Java, Kotlin, Firebase, API Development)
- **Version Control** (Git, GitHub, GitHub Desktop)
- **Problem Solving & Debugging**
- **UI/UX Design** (Figma)
- **Teaching & Presenting**