

CARISSA FARRY HILMI AZ ZAHRA

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Summary

Backend Engineer with experience in designing and maintaining scalable RESTful APIs and distributed service systems in banking industry. Skilled in optimizing backend performance, improving system reliability, and maintaining code quality through security best practices, monitoring, and technical debt reduction. Experienced with Lumen, Node.js, Redis, Docker, MySQL, NGINX, and CI/CD pipelines, as well as system observability using Grafana. Proven ability to work in production environments, optimize legacy systems, troubleshoot high-traffic APIs, and collaborate across cross-functional teams to deliver reliable and scalable backend services.

Experience

PT Bank Rakyat Indonesia Tbk | Associate Application Developer Feb 2024 - Feb 2026

- Design, develop, and maintain RESTful service APIs for **BRIGuna** products, handling up to **13k requests per API per day** with high availability using Lumen.
- Perform live monitoring of API traffic using **Grafana**, identifying anomalies and troubleshooting root causes to deliver long-term fixes.
- Integrate internal and third-party APIs to support digital loan disbursement workflows.
- Implement **rate limiting** and **structured logging** to harden API security and performance, reducing incident tickets by **10%**.
- Optimize **the monitoring API** by aggregating data from multiple microservices in a distributed service environment, ensuring response times **under 10 seconds**.
- Optimize **database queries and indexing strategy**, reducing average query time by **10–20%**.
- Improve backend maintainability and reliability by resolving code smells, reducing technical debt, and ensuring compliance with **SonarQube** quality standards.
- Proactively design and harden API access control, collaborating closely with QA and security teams to **analyze and prevent penetration testing risks**.
- Work with **Docker, MySQL, Redis, Jira, and Bitbucket** in daily development and deployment workflows.

Apple Developer Academy @ UC | iOS Developer, Product & Project Manager Mar 2023 - Dec 2023

- Trained **over 100 videos** to achieve a **98% accuracy rate** in **movement classification** for a body motion detection using **Core ML**.
- Successfully retrieve daily user health data, including **standing minutes and step counts**, using **HealthKit**.
- Successfully extract gyroscope data from the Apple Watch using **Core Motion** and established **seamless data transfer** between iOS using **Watch Connectivity** and **HealthKit Session**.
- Achieved **80% accuracy** in applying gyroscope data as physics effects to a 2D object within **SceneKit**.
- Accomplished the integration of **automatic object placement** and **interactive gestures** using **ARKit**.
- Conducted user feedback, including **User Testing** and **Usability Testing** with **3 teachers, parents, 10 children, and 2 schools**, resulting in an **80% improvement** in engagement rates.

PT. Terobosan Anak Bangsa | Backend Engineer *Part Time* Sept 2022 - Dec 2023

- Expanded user base up to **1800 members** by developing the backend of the web platform using **Node.js, Vue.js, React.js, TypeScript, Pinia, and Appwrite**.
- Successfully developed a **live transcription feature** using the **Web Speech API** and expanded it to include **file-based transcription** using **Deepgram**, supporting multiple languages.
- Design real-time backend features of transcription room using WebSockets (**Socket.IO**) to support concurrent user collaboration in a scalable service architecture.
- Building a Zoom client marketplace app by utilizing **WebRTC** and **Socket.IO** enabling **live synchronous system between platforms**.
- Integrated **Midtrans payment gateway** to support secure online transactions, including payment processing and webhook handling for transaction status updates.

UPN Veterans East Java | Backend Developer *Freelance* Aug 2021 - Oct 2021

- Successfully implemented **dynamic shuffled questions** in a computer-based exam application using the **Laravel** framework.
- Established a robust bidirectional flow of requests between the client and the server for **150 participants** by implementing an **asynchronous system** on the **VPS**.
- Executed production in a **Docker** environment using **CI/CD**.

Diskominfo Jawa Timur | Web Developer *Internship* Jul 2021 - Sept 2021

- Implemented the **Spatio Role-Based Access Control (RBAC)** system in a Host Management Web Application using **Laravel** and a **MySQL** database.

Skills

Go • Node.js • TypeScript • Redis • Lumen • Docker • MySQL • Swift • Vue.js • React.js • Next.js • Git • Appwrite • NGINX • TailwindCSS • C/C++ • Python • Java • Oracle

Projects

Moco Kids | Developer, Product & Project Manager *Moco Kids* **Oct 2023 - Dec 2023**

• Moco is an iOS application that will assist your child in reading comprehension through interactive activities such as flashcards, mazes, and an interactive AR world.

Bowlmo *Bowlmo* **Jul 2023 - Aug 2023**

• Bowlmo is a Bowling Game that allows users to throw a ball using their Apple Watch, calculating rotation and speed in the throwing force.

Petto Life | Developer *Petto Life* **Jun 2023 - Jul 2023**

• Petto Life is an iOS App that provides users with relaxation activity reminder through game which is by taking care of a pet and compete through leaderboard.

RedCal *RedCal* **May 2023**

• RedCal is simple app that help track menstrual cycle and predict the next period.

More about my work, check out my [Github](#).

Education

Bina Nusantara University Bachelor's Degree
Information System **2024 – 2026**
Thesis: *Designing A Bankruptcy Prediction Dashboard For Indonesian Banking Companies*
Tech Stack: Python, Random Forest, XGBoost, NGBoost, LightGBM
GPA: 3.76 / 4.0

Politeknik Elektronika Negeri Surabaya Diploma 3 Degree
Informatics Engineering **2019 – 2022**
Thesis: Internal Quality Audit Information System
Tech Stack: MVC PHP Native, Oracle
GPA: 3.75 / 4.0

Achievement

Toyota Astra Financial Incubation | Awardee *Online Incubation* **Nov 2021 - Des 2021**

• Being **1 of 20 people selected from 160 candidates**, I received training on project management, data analysis, digital technology trends, IT infrastructure, and cyber security.
• Collaborated with 4 other members to create a technology-related business plan at TAF within a week, involving **market analysis, product research, and competitor analysis**.
• Earned the **Best Group Collaboration Award** by actively participating in daily challenges.

Coursework

Foundations of Project Management | Google, Coursera **Aug 2023**
• Project Management • Change Management • Strategic Thinking • Career Development • Organizational Culture

Data Science Course | PKS Digital School **Feb 2022 - Apr 2022**
• Basic Python • Data Scientist Library and Package • Basic SQL • NLP • Final score of 93 points out of 100

Activity Experience

Secretary I, Forum Mahasiswa Tulungagung se-Surabaya **Aug 2021 - Jul 2022**
Perform the functions of control, coordination, development and improvement of administrative and financial management systems as well as communication in building internal and external relations of the organization.

Chairman, UKM Teknologi dan Kesehatan PENS **Mar 2021 - Feb 2022**
Adhering to the general policy of the administrator, responsible for all organizational activities, presided over every comprehensive board meeting, responsible both inside and outside the organization, and carry out management reshuffles if necessary.

External Relations Department Staff, Forum Mahasiswa Tulungagung se-Surabaya **Oct 2020 - Jul 2021**
Established relationships with relevant stakeholders in the scope of education and local cities of origin, as a distributor of information from and to external organizations, providing insight and increasing student interest in participating in external activities as well as held public events such as community service.