



Ariq Bagus Sugiharto

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ABOUT ME

Backend-oriented Informatics graduate with hands-on experience building RESTful APIs and database-driven features using Java Spring Boot, Laravel, TypeScript/Node.js, and MySQL. Comfortable designing schemas, writing complex SQL, and tuning queries for fast dashboards and reports. Deployed Dockerized services on AWS (ECS/ALB, RDS/Aurora, S3) with CI/CD (GitHub Actions). I collaborate closely with frontend and product to turn requirements into reliable services, write clear docs/tests, and own features end-to-end. While new to Rails and LLM tooling, I bring a solid ML foundation (XGBoost, feature engineering) and am eager to learn RAG, embeddings, and prompt design to ship AI-powered features.

EDUCATION

Institut Teknologi Nasional

September 2021 – September 2025

- Informatics Major with 3.95/4.00 GPA

WORK EXPERIENCES

Object Oriented Programming Laboratory Assistant

March 2025 – June 2025

Tools: Java, HTML, CSS, JavaScript, Springboot, Netbeans, Laragon, Postman, PHPMyAdmin

- Assist to teach Object Oriented Programming to 43 students with two other assistants.
- Topics covered: Java fundamentals (data types, variables, control flow), core OOP concepts (classes, objects, methods, encapsulation), inheritance and polymorphism, MVC pattern, abstract classes and interfaces, Spring Boot fundamentals (REST APIs), and web development (HTML/CSS/JavaScript).
- Guided students in building final projects applying OOP and basic web back-end concepts.

Digital Image Processing Laboratory Assistant

March 2025 – June 2025

Tools: Python, Pycharm, Google Colaboratory

- Co-led labs for 34 students; graded work and mentored projects.
- Materials: modules A–I, point ops, geometric transforms, filtering/convolution, DFT & edges, thresholding/morphology, color, basic detection.

Multimedia Laboratory Assistant

September 2024 – January 2025

Tools: ActionScript, Adobe Animate, Adobe Premiere, Blender

- Assisted instruction for 50 students; supported final projects.
- Materials: interactive multimedia, timeline/transitions, color grading or color correction.

Application Developer at PT Sinergi Transformasi Digital (Mitra Integrasi Informatika, Metrodata)

February 2024 – June 2024

Tools: Java, HTML, CSS, Javascript, Springboot, Netbeans, Laragon, Postman, HeidiSQL

- Assist in developing two websites, the first one is called HRIS, which is used for employee to be able to request for overtime, document, training, leave, parking reimbursement, and vaccine document. And the second one is called Sakura, which is used for Relation Manager, Project Manager, ext. to manage employee data on the company and sales order data from a deal with another company.
- Some of the things that are develop include improving the website dashboard, updating the API that's used on the website, adding new feature to an existing page, ext.
- Improved existing page to better, be it about performance or functionality. E.g. are improving the dashboard load page which used to take minutes and reduced it to mere seconds by removing unused code.

Basic Programming Laboratory Assistant

September 2023 – January 2024

Tools: Python, PyCharm, Google Colaboratory

- Assist to teach basic programming to more than 50 students with four other assistants; assist making final projects based on the material that has been taught.

- The material taught are conditional statements, looping, data types, how to connect to a database, flowcharts, and other material that underlies basic programming.

PROJECTS

Personalized Daily Hydration Prediction Using IoT and Feature-Engineered XGBoost 2025

Tools: XGBoost, Laravel, MySQL, C, WebSockets, Android (Kotlin, Jetpack Compose)

From: Thesis Course – Faculty of Industrial Technology, ITENAS

- Built an IoT Smart Bottle Station to capture drinking events, user identity, and environmental data, then streamed updates to a Laravel backend and an Android app via WebSockets.
- Developed an Android app that computes personal hydration targets (Watson and Holliday-Segar) and delivers contextual insights and notifications.
- Trained an XGBoost model with feature engineering on temporal and behavioral patterns, using time-series hold-out validation and grid search for hyperparameter tuning.

Adaptive Learning Platform (Educourse) 2025

Tools: Laravel 10, React, TypeScript, MySQL, Docker, AWS (ALB, ECS, RDS/Aurora, S3), GitHub Actions

From: Cloud Computing Course – Faculty of Industrial Technology, ITENAS

- Designed Laravel REST APIs with Sanctum auth, role-based endpoints (admin/teacher/student), validation, pagination, and clear error models.
- Modeled MySQL schema with DDL/DML, constraints, and indexing; optimized queries for faster dashboard/roster loads.
- Containerized with Docker and deployed on AWS (ECS behind ALB, RDS/Aurora DB, S3) with CI/CD via GitHub Actions; coordinated API contracts and testing with the React/TS frontend.

SocioBlast (Full-stack Laravel Web App for Social Media Engagement) 2024

Tools: Laravel, MySQL, Meta for Developers (Facebook/Instagram Graph API)

From: Entrepreneurship Course – Faculty of Industrial Technology, ITENAS

- Built a full-stack website that helps entrepreneurs increase social media interactions by composing and publishing posts to linked accounts.
- Implemented user authentication, Meta OAuth account linking, and media upload plus post publishing via the Graph API.

Java Sparepart Purchase App 2023

Tools: Java, MySQL, NetBeans IDE, HeidiSQL

From: Object Oriented Programming Course – Faculty of Industrial Technology, ITENAS

- Developed a spare parts store program using Java in the NetBeans 8.2 application.
- Contributed to designing an efficient application with two primary roles: for sellers, covering inventory management, adding and categorizing products, and viewing customer transactions; and for buyers, enabling them to add items to the cart, proceed with the checkout process, view transaction history, and manage customer profiles.

Python Plate Number Detection 2024

Tools: Python, PyCharm

From: Computer Vision Course – Faculty of Industrial Technology, ITENAS

- Built plate detection and recognition app using YOLOv8, EasyOCR, OpenCV, and PyQt5.
- Applied preprocessing: grayscale, resize, sharpen, Otsu, opening.

SKILLS

Soft skill:

- | | | |
|---------------------------|----------------------------|----------------------|
| • Team Collaboration | • Works Under Pressure | • Problem Resolution |
| • Effective Communication | • Code Reading Proficiency | • Time Management |
| • Critical Thinking | • Patience | |

Hard skill:

- | | |
|-------------------------|---|
| • Programming Languages | : Java, Kotlin, Pascal, C, JavaScript, Typescript, PHP, Python |
| • Web Technologies | : HTML, CSS, PHP, JavaScript, Springboot, Laravel, React |
| • Development Tools | : NetBeans, Lazarus, Arduino, Delphi 7, Visual Studio Code, Eclipse, PyCharm, Google Colaboratory, Android Studio |
| • Database | : MySQL, HeidiSQL, Postman |
| • Office Tools | : Microsoft Word, Microsoft Excel |