

Education

- 2023 - **Universitas Indonesia, Depok, West Java, Indonesia, Faculty of Computer Science**
Present
 - Cumulative GPA 3.87 / 4.00 (Current)

Work Experiences

- June 2025 - **Datacakra as Associate Backend Engineer**
Present
 - Specialized in **Industry 4.0 solutions**, developing **Industrial IoT (IIoT)** and **real-time monitoring systems** for enterprise clients across Indonesia.
 - Designed and launched a full-featured Inventory Management System; utilized **ReactJS** and **Redux Toolkit** for complex state management and implemented **IndexedDB** to enable complete offline operations, guaranteeing uninterrupted use in low-connectivity environments.
 - Developed a **Nest.JS** microservice to process real-time IoT data from an **MQTT** broker, implementing a stabilization algorithm to ensure only accurate weight measurements were captured.
 - Engineered the real-time data layer for an Asset Tracking System, implementing a **WebSocket** API to push live GPS coordinate streams from the server to a dynamic front-end dashboard.
 - Initiated the development of a Quality Management System, building the core API with **Nest.JS** and designing the schema in **PostgreSQL**. Fully containerized the application with **Docker** to create a reproducible environment and streamline deployment.
 - Diagnosed, troubleshooted, and resolved complex bugs in a production **React** and **Nest.JS** environment, conducting root cause analysis to prevent recurrence.
- January 2025 - May 2025 **Kokocoder Coding Club as Full Stack Developer Intern**
A web-based LMS platform serving **400+ clients** all over Indonesia to learn programming
 - Actively fixing bugs that occur in both frontend and backend, improving system stability and user experience.
 - Integrating **Oauth2** features, enhancing user authentication security and streamlining login processes.
 - Designing a maintainable and expandable code architecture, improving system scalability and reducing future development time.
 - Refactored codebase and minimized code smells, leading to improved code readability and maintainability.
- January 2024 - **Kokocoder Coding Club as Competitive Programming Coach**
Present
 - Teaching Foundation of Programming and Data Structure and Algorithm for middle school to college students.
 - Preparing middle and high school students for Indonesia National Olympiad in Informatics (OSN Informatika).
- July 2024 - **Faculty of Computer Science, Universitas Indonesia as Teaching Assistant of Programming Foundation 1**
December 2024
 - Assisted the lecturer in grading 10 tutorials/labs and 4 projects.
 - Provided mentorships and assignment demonstrations for 16 students.

Achievements

- May 2025 **Codefest 001 Competitive Programming Competition by Universitas Sumatera Utara as 3rd winner.**
- December 2024 **The 2024 ICPC Asia Jakarta Regional Contest as Finalist (25th place).**
- November 2024 **Pekan Ristek Data Science Competition by Ristek Faculty of Computer Science Universitas Indonesia as 1st winner.**
- November 2024 **Hology 7.0 Competitive Programming Division by Universitas Brawijaya as 4th runner up.**
- October 2024 **The 2024 ICPC Asia Jakarta - Indonesia National Contest as Finalist (15th place).**
- September 2024 **GEMASTIK 2024 Competitive Programming as Finalist.**
- December 2023 **The 2024 ICPC Asia Jakarta Regional Contest as Finalist (34th place).**
- November 2023 **The 2023 ICPC Asia Jakarta - Indonesia National Contest as Finalist (13th place).**

February 2023	Second Stage of International Olympiad in Informatics (IOI) National Training Camp (Top 20+). Also, participating in Asia Pacific Informatics Olympiad (APIO) 2023.
November 2021	Indonesia National Olympiad in Informatics (KSN Informatika) 2021 as Gold Medalist.
August 2019	Olimpiade Matematika ITS (OMITS) 2019 by Institut Teknologi Sepuluh Nopember as 4th runner up.
November 2018	Math and Logic Competition (MLC) 2018 by Airlangga University as 3rd runner up.
October 2018	Olimpiade Matematika Vektor 2018 (Team Category) as 1st winner.

Leadership and Organizational Experiences

August November 2024	- Open House Faculty of Computer Science, Universitas Indonesia as Staff of Event <ul style="list-style-type: none"> • Successfully organized hybrid (online & offline) Open House events, attracting 500+ participants from across Indonesia. • Led event coordination efforts, ensuring seamless execution and engaging experiences for attendees. • Implemented strategic outreach, resulting in 1,000+ registrants and maximizing event reach.
March October 2024	- COMPFEST 16 as Scientific Committee on Competitive Programming Competition <ul style="list-style-type: none"> • Designed and curated challenging algorithmic problems for both the qualifier and final rounds, ensuring a high-quality competition experience. • Conducted rigorous problem reviews and testing to maintain fairness, accuracy, and technical soundness. • Coordinated with the technical team to ensure smooth operations and optimal system performance, minimizing disruptions during the competition.

Technical Skills

Languages	TypeScript, JavaScript, Java, Python, C/C++, SQL
Frameworks & Libraries	<ul style="list-style-type: none"> • Backend: Nest.JS, Spring Boot, Django • Frontend: React.js, Vue.js, Nuxt.js, Redux Toolkit, HTML5, CSS3
Databases	PostgreSQL, IndexedDB
DevOps & Tools	Docker, Git, WebSockets, MQTT, Redis