Shane Michael Tanata Tendy

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RESEARCH INTERESTS

I am interested in advancing algorithm design and optimization techniques, especially in the field of graph theory and approximation algorithms.

EDUCATION

Universitas Indonesia   Bachelor of Computer Science
#1 University in Indonesia [QS WUR]   Aug 2023 – Jul 2027 (Expected)

- **GPA**: 3.87 / 4.00

HONORS AND AWARDS

- **23th Place – Asia Pacific**, ICPC Regional Asia Jakarta — Nov 2025

- **19th Place – National**, ICPC Indonesia National Contest (Asia Jakarta) — Oct 2025

- **3rd Place – National**, Codefest 001 — May 2025
  - Competitive Programming competition by Universitas Sumatera Utara

- **25th Place – Asia Pacific**, ICPC Regional Asia Jakarta — Dec 2024

- **5th Place – National**, Hology 7.0 — Nov 2024
  - Competitive Programming competition by Universitas Brawijaya

- **15th Place – National**, ICPC Indonesia National Contest (Asia Jakarta) — Oct 2024

- **Honorable Mention – National**, GEMASTIK 2024 — Sep 2024

- **34th Place – Asia Pacific**, ICPC Regional Asia Jakarta — Dec 2023

- **13th Place – National**, ICPC Indonesia National Contest (Asia Jakarta) — Nov 2023

- **Scholarship Awardee - National**, Indonesia Maju Scholarship — Jul 2023

- **Gold Medal – National**, Indonesia National Olympiad in Informatics — Nov 2021
  - Second Stage of International Olympiad in Informatics (IOI) National Training Camp (Top 20+).
  - Participating in Asia Pacific Informatics Olympiad (APIO) 2023.

- **5th Place – National**, Olimpiade Matematika ITS (OMITS) — Aug 2019
  - Mathematics Competition by Sepuluh Nopember Institute of Technology

- **4th Place – National**, Math and Logic Competition (MLC) — Nov 2018
  - Mathematics Competition by Airlangga University

- **1st Place – National**, Olimpiade Matematika Vektor 2018 — Nov 2018
  - 1st place in team category in Mathematics Competition by Malang Public University

WORKING EXPERIENCE

Associate Backend Engineer, Datacakra   June 2025 – Aug 2025

- 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, troubleshot, and resolved complex bugs in a production React and Nest.JS environment, conducting root cause analysis to prevent recurrence.

Full Stack Developer Intern, Kokocoder   Jan 2025 – May 2025

- Actively fixed bugs that occur in both frontend and backend, improving system stability and user experience.
- Integrated Oauth2 features, enhancing user authentication security and streamlining login processes.
- Designed 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.

Teaching Assistant, Universitas Indonesia   Jul 2024 – Dec 2024

- Teaching Assistant for Foundation of Programming (60+ students) in the Faculty of Computer Science.
- Collaborated with lecturers to support assessments and student learning.
- Created assignments and solutions to reinforce core theoretical concepts.

Competitive Programming Coach, Kokocoder   Jan 2024 – Present

- Teaching Foundation of Programming, Data Structure and Algorithm, and Competitive Programming for middle school to college students.
- Preparing middle and high school students for Indonesia National Olympiad in Informatics.

Leadership & Service

Expert Staff, Competitive Programming Competition, COMPFEST   May 2025 – Sep 2025

- 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.

Event Staff, Open House Faculty of Computer Science   Aug 2024 – Nov 2024

- 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.

Student Mentor, DDP 0   Jun 2024 – Sep 2024

- Student Mentor for first-year Faculty of Computer Science, Universitas Indonesia students in introductory programming.
- Led 4 offline sharing sessions and assigned problems to strengthen computational thinking.
- Provided academic guidance and peer support to help students adapt to university life.

Skills

Language	Indonesian (Native), English (Fluent, IELTS Band 7.5).
Programming Language	TypeScript, JavaScript, Java, Python, C/C++, SQL.
Frameworks & Libraries	Nest.JS, Spring Boot, Django, React.js, Vue.js, Nuxt.js, Redux Toolkit, HTML5, CSS3
Databases	PostgreSQL, IndexedDB
DevOps & Tools	Docker, Git, WebSockets, MQTT, Redis