New York, United States
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Aldrich Halim

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I am a Computer Engineering MS candidate at NYU with 4+ years of experience building distributed systems and low-latency storage solutions that scale to serve 1M+ users, particularly in fintech. I specialized in AWS cloud-native architectures, performance optimization, and full-stack development.

Work Experience

Teaching Assistant New York University January 2025 – Now
Data Center and Cloud Computing

- Keep lab materials for Software-defined Networking, Apache Spark, and Kubernetes up to date, ensuring that all hands-on exercises are functional. I use Linux, Python, Wireshark, and Mininet.
- Collaborate with the Professor and fellow assistants to develop grading rubrics for assignments and laboratory work.
- Offer technical support to students on cloud computing concepts and maintain a response rate of 24 hours.

Assistant Engineering Manager Makmur.id 2022 – 2023
Founding Team

- Achieved a $30 million Series A investment round by growing 100% in Assets Under Management (AUM) using a streamlined referral program, tiered transaction fees, and a B2B platform. I used TypeScript and MongoDB.
- Designed and implemented a distributed streaming service with sub-100ms latency for stock account opening, achieving 99.9% SLO. I used Redis Stream, TypeScript, and Protobuf messages.
- Deployed a unified payment API with performance metrics tracking (latency, cache hit rates) that aggregated 5 vendors, leading to an 83% decrease in API calls. I used REST API, TypeScript, and AWS SNS.

Associate Software Engineer Makmur.id 2019 – 2022
Founding Team

- Developed a cross-platform mutual fund investing app with registration, transaction, and monitoring features, which helped our company secure licensing from Indonesia's Financial Authorities. I use JavaScript and ReactNative.
- Implemented object storage solution using AWS S3 and Cloudfront for storing user registration documents and deployment artifacts, managing 100GB+ of data with 99.99% availability.
- Recreated the company's landing page with server-side rendering to optimize SEO, migrating the system to NextJS and WordPress+MySQL, and deployed to AWS EC2 and AWS Relational Database Service.

Education

- M.Sc. Computer Engineering, New York University, United States. Graduating in May 2025
- B.Sc. Computer Science, Bandung Institute of Technology*, Indonesia.

**Bandung Institute of Technology is ranked the #1 university for Computer Science in Indonesia*

Projects

- Parkinson's Tremor Detection - Created a wearable prototype that detects Parkinson's tremors with 1s latency and 99% accuracy. See the source on GitHub. I used an STM32 Microcontroller, C++, and RTOS.

Technologies

- **Languages**: Python, TypeScript, HTML, CSS, JavaScript, Java, SQL
- **Technologies**: Linux, MongoDB, Redis, PostgreSQL, AWS (EC2, S3, RDS), Git, Docker, React, Jest, Code Review
- **Other**: Data Structures and Algorithms, Distributed Computing, Object Storage Systems, Performance Optimization, Low-latency Systems, REST API, Containers, Unit testing, SDLC
- **Working knowledge** of C++, Embedded Systems, Artificial Intelligence, and Large Language Model (LLM)