

# Amit Rahman

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## WORK AUTHORIZATION

Singapore Citizen; eligible for H-1B1 and J-1 US visas, no petition & lottery required

## EDUCATION

**National University of Singapore (NUS)**  
Bachelor of Engineering (Honours) in Computer Engineering

Expected: May 2025

- NUS Engineering Scholar** - Awarded to 50 engineering students in faculty cohort of 1500

## EXPERIENCE

**Grasshopper**  
Software Engineer Intern

Sep 2024 – Present  
Singapore

- Spearheading new developments of a high-performance Rust implementation parser generator for Google’s Protobuf, enhancing data serialization efficiency
- Collaborating with the trading systems team to optimize for low-latency communication protocols, maintaining stability
- Conducting thorough performance benchmarking ensuring parser meets stringent high-frequency trading requirements

**Kisi Inc.**  
Software Engineer I

Feb 2024 – Aug 2024  
New York

- Led the transition of 50,000 access control IoT devices to FreeRTOS and a GCP-backed proprietary IoT platform, improving system reliability and scalability
- Developed critical firmware components including a thread-safe networking library and encryption module, resulting in an 80% reduction in networking latency and a 100x improvement in encryption/decryption speed
- Collaborated with cross-functional teams to implement embedded telemetry support, enhancing overall system monitoring

**Coditioning**  
Software Engineer Intern

Jul 2023 – Sep 2023  
Remote

- Engineered an end-to-end sandboxed code execution environment with a responsive feedback system, achieving an average response time of 500ms for ~1,000 users
- Designed and implemented REST API and message queue system, ensuring efficient handling of code submissions.
- Developed intuitive database schemas and API endpoints for retrieving historical user submissions, enhancing the platform’s learning analytics capabilities

**HydraX**  
Software Engineer Intern

May 2023 – Aug 2023  
Singapore

- Implemented internal cost analysis tools in Kubernetes, improving granularity from cluster to container level and enabling targeted optimization strategies
- Identified and resolved inefficiencies in log ingestion monitoring stack, reducing cloud storage costs across various clusters by up to 40%
- Migrated legacy AWS resources to infrastructure-as-code, expanding automation coverage of CI/CD pipeline and improving deployment consistency for private digital exchanges

**K3 Ventures**  
VC Summer Analyst

Jan 2021 – Mar 2021  
Singapore

- Developed Python programs to scrape and analyze IPO stock price trends, providing valuable insights for VC clients
- Created custom monitoring dashboards using data visualization techniques, enhancing the firm’s ability to track and evaluate potential investment opportunities
- Conducted market research on emerging tech trends, contributing to firm’s investment strategy in high-growth sectors

## SKILLS

**Languages:** C/C++, Rust, Python, TypeScript, JavaScript, SQL, HTML, CSS, Bash  
**Technologies:** Docker, Kubernetes, AWS, GCP, GitHub Actions, FreeRTOS, CMake, Linux, Git, Grafana  
**Frameworks:** React.js, Next.js, Node.js, Express.js, PostgreSQL, Redis, RocksDB