Amit Rahman

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WORK AUTHORIZATION

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

EDUCATION

National University of Singapore (NUS)   Expected: May 2025
Bachelor of Engineering (Honours) in Computer Engineering
- **NUS Engineering Scholar** - Awarded to 50 engineering students in faculty cohort of 1500

EXPERIENCE

Grasshopper   Sep 2024 – Present
Software Engineer Intern   Singapore
- Authored framework for declaratively creating custom and performant Wireshark protocol dissectors written in Rust
- Spearheading new developments of a high-performance Rust implementation parser generator for Google's Protobuf, enhancing data serialization efficiency
- Conducting thorough performance benchmarking ensuring Protobuf parsers meets stringent high-frequency trading requirements

Kisi Inc.   Feb 2024 – Aug 2024
Software Engineer I   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   Jul 2023 – Sep 2023
Software Engineer Intern   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   May 2023 – Aug 2023
Software Engineer Intern   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   Jan 2021 – Mar 2021
VC Summer Analyst   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: Modern C++ (17-23), C, Rust, Python, SQL, HTML, CSS, Bash
Technologies: Docker, Kubernetes, AWS, GCP, GitHub Actions, FreeRTOS, CMake, Linux, Git, Grafana, Vim
Coursework focus areas: Systems programing, Compilers, Programing Languages