Yong Zhi Tan

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EDUCATION

University of Illinois at Urbana-Champaign *May 2022*
M.Eng Computer Engineering | Grainger College of Engineering

University of Illinois at Urbana-Champaign *May 2021*
B.S. Computer Engineering (Highest Honors) | Grainger College of Engineering *GPA: 4.0/4.0*

WORK EXPERIENCE

Uber **Sunnyvale, CA**
Software Engineer Intern | Knowledge Platform Team *May 2021 – Aug 2021*
- Developed fraud detection and prevention capabilities on Uber's comprehensive knowledge graph database platform maintained in Apache Cassandra
- Built a Kafka based event-driven feature computation engine at over with Apache Flink and Spark to enable real time fraud detection and actioning, processing more than 2000 queries per second
- Automated fraud detection and actioning processes, leading to an increase in the number of flagged cases by 8x

University of Illinois at Urbana-Champaign **Champaign, IL**
Undergraduate Research Assistant | Electrical and Computer Engineering Department *Aug 2020 – May 2021*
- Developed congestion control algorithms for datacenters, increasing performance and decreasing tail end latency
- Implemented models of high-performance datacenter switches for the ns3 simulator in C++ to accurately emulate and quantify the performance of congestion control algorithms

Government Technology Agency (GovTech) **Singapore**
Software Engineer Intern | National Digital Identity App Team *May 2020 – Aug 2020*
- Developed the backend of Singapore's digital identity system of over 3 million users by building secure certificate-based authentication and digital document signing REST API frameworks with Java and Spring Boot
- Deployed microservices to AWS by maintaining CI/CD pipelines with Docker, K8s, and GoCD, allowing code changes to be automatically tested and seamlessly integrated while maintaining the high availability of services
- Optimized SQL schema for AWS Aurora with indexes and optimistic locking, improving query throughput by 400%

University of Illinois at Urbana-Champaign **Champaign, IL**
Course Assistant | Electrical and Computer Engineering Department *Jan 2019 – Dec 2019*
- Mentored 30 engineering students to reinforce engineering concepts and best practices through weekly lab sessions
- Conceptualized final project ideas with students, discussing the project feasibility and technical limitations

PROJECTS

Unix-Like Operating System Kernel *Sep 2019 – Dec 2019*
- Designed and built a Linux based kernel for the x86 processor written in C and x86 Assembly, allowing users to load and run custom programs and applications
- Implemented drivers for the mouse, a high-resolution GUI, inter-process communication, and multitasking to allow users to run concurrent processes seamlessly and intuitively on multiple terminals

LEADERSHIP

Singapore Student Association, UIUC – Vice President & Secretary *May 2019 – May 2020*
- Liaised with partner sponsors and government bodies in Singapore to plan Careers@SG, a career networking event for UIUC students to discover career opportunities in Singapore
- Planned food festivals and celebrations to share South East Asian culture with other students on campus

SKILLS

Programming Languages: C, C++, C#, JavaScript, Python, Java, Go
Technologies: SQL, Nodejs, Git, Linux, AWS, Spring, Kubernetes, Flink, Kafka, Spark