

WORK EXPERIENCE

ByteDance **Singapore**
Software Engineer (SRE) Intern | Data Infrastructure SRE Team *Sep 2025 - Dec 2025*

- Monitored ByteGraph, ByteDance's distributed graph database, by taking on-call responsibilities and performing machine operations for production clusters in Singapore and Europe
- Developed a monitoring feature to export clusters with warning indicators, automatically calculating required storage, read, and QPS quota limits to ensure system stability and safe operating levels
- Developed an entire dashboard on our Cloud Platform that allows us to track our machine counts across different models, cluster namespaces and DCs, allowing us to decisively provision and migrate machines faster

Tangled Social **Singapore**
Co-founder, Software Engineer *July 2025 - Current*

- Provisioned AWS infrastructure and set up Dev/Prod environments with Terraform, contributing to ~80% of the codebase
- Developed our own real-time chat system using AWS WebSocket Gateway, Lambda integrations, and DynamoDB

Taiwan Semiconductor Manufacturing Company (TSMC) **Taiwan, Hsinchu**
Software Engineer (DevOps) Intern | Intelligent Eng-System Mask Team *June 2025 - Aug 2025*

- Integrated OpenTelemetry tracing with Spring Boot Starter into critical workflows across 10+ TSMC fabrication labs, becoming the first on the team to enable context propagation for NATS-driven systems
- Engineered auto-generation of test scenarios with Grafana Tempo to expand and track SIT coverage, removing the need for any more manual system testing and resulting in countless hours saved for our developers
- Built auto sanity check mechanisms querying Prometheus metrics, enhancing service reliability and deployment confidence for our industrial scale applications across all fabrication labs

Changi Airport Group **Singapore**
Software Engineer Intern | Api Gateway and Microservices Team *Jan 2025 - May 2025*

- Engineered a production-grade, event-driven serverless Slack bot to automate and mobile-enable airport flight operations workflows, reducing average query resolution time by 80%
- Implemented centralized CloudWatch log extraction across multiple AWS accounts, parallelising export jobs to overcome the 10k log export limit
- Built and deployed two production internal microservice that reads flight data from our production database, secured and exposed behind our team's production Apigee API Gateway

ROOTech - Student Government **Singapore**
Software Engineer *Nov 2024 - Mar 2025*

- Developed key event webpages independently, serving 1600 students (Orientation 2023, Night Fiesta 2023, LCC 2024)
- Led the integration of custom RFID bands and built a Game Booth Carnival System with a real-time leaderboard, implementing JWT-based authentication and role-based (different booth admins) API access controls using Django
- Built AI Chatbot with event pass image generation for Open House 2025 registration, accommodating 1.8k users over 2 days

Reluvate Technologies **Singapore**
Software Engineer Intern | Payment Platform Team *Feb 2022 - Jul 2022*

- Engineered core backend functionalities of a Django-based merchant admin portal along with rigorous unit testing, ensuring scalability for 4,000+ merchants, including major brands like KOI, Watsons and Zara
- Developed a company-wide testing SOP, serving as the go-to person for questions on creating unit tests with Django

PROJECTS

PlantPulse | Dell Cloud and Iot Project Award Finalist (<https://github.com/zedithx/Cloud-Iot-Infra>)

- Designed cloud infrastructure for an Iot Plant Monitoring Device to detect disease rates, humidity, moisture and temperature
- Leveraged AWS CDK to build up extensive AWS Cloud Infrastructure, such as Iot Core, Lambda, DynamoDB, EventBridge, SNS, SES, S3 and SageMaker Batch Transform

EDUCATION

Singapore University of Technology and Design (SUTD) ***Aug 2022 - May 2026***
Bachelor's, Computer Science and Design ***GPA: 4.2/5.0***

SKILLS

Languages: Python, Golang, Ruby, Javascript, TypeScript, Java, HTML/CSS, SQL

Frameworks: Django, Flask, FastAPI, Ruby on Rails, Spring Boot, NextJS, ReactJS, React Native/Expo

Developer Tools: AWS, Google Cloud, Azure Cloud, Kubernetes, Helm, Terraform, Sentry, Cypress, Git, Grafana