

# Tze How Lee

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Eligible for H-1B1 US-Singapore Free Trade Agreement Visa

## WORK EXPERIENCE

### SITE RELIABILITY ENGINEER | CITADEL

Enterprise Data | Dec 2022 - Current

- Planned, coordinated, and executed major disaster recovery exercise across on-premise and cloud data centres for firm's reference data systems
- Built and owned high-performance gRPC services to serve both institutional and financial reference data to every team in the firm
- Implemented end-to-end tracing and monitoring for services, significantly improving error visibility and traceability
- Pioneered internal CLI tooling for automation of production workflows, trivializing manual tasks and reducing human error

### SOFTWARE ENGINEER | SQUAREPOINT CAPITAL

Data Science & Engineering | Jun 2020 - Nov 2022

- Worked closely with quantitative investment researchers to develop robust and performant data pipelines for numerous timeseries datasets
- Developed a full-stack universe management microservice using React/FastAPI on Kubernetes for dynamic parameterization and cataloguing of broker-specific APIs
- Contributed monitoring submodule to the internal Data Engineering SDK, streamlining developer experience of the Data Engineering team.
- Coordinated development of new projects, led weekly stand-ups, and conducted interviews for over 60 candidates for technical roles

### SOFTWARE ENGINEER | NOVALUX INVESTMENT MANAGEMENT

Dec 2018 - Feb 2020, Internship & Full-time

- Designed and implemented data pipeline with numerous data sources for purposes of backtesting, portfolio monitoring, and report generation.
- Built internal portfolio management system, with UIs (Flask, Vue/MaterializeCSS) for non-technical users' input of trades and metadata.
- Sped up various internal tools by 80% by implementing parallelization of I/O bound daily processes.

## SELECT ACHIEVEMENTS AND PROJECTS

### SUTD 50.021 ARTIFICIAL INTELLIGENCE | BEST PROJECT AWARD

Jun 2019 - Sep 2019, OpenAI Gym: Car Racing

- Developed unique imitation learning approach that achieved generalized state-of-the-art training score with 90% reduction of training time.
- CNN-based model analyzed using Layer-wise Relevance Propagation to visualize spatially significant input regions on a frame-by-frame basis.
- Awarded the EPS Computer Systems AI Award alongside a \$750 cash prize for Best Project in a cohort of over 120 students.

### PROJECT JESSICA | OUTSTANDING CONTRIBUTION TO PILLAR AWARD

Nov 2018 - Feb 2019, Robotics

- Robotics Open House showcase for SUTD; Used 6-axis robotic arm to interface between end-users and an automated coffee machine.
- Interfaced with the Robot Operating System (ROS) stack for motor control, and built a Flask web-application for operator convenience of functionality.
- Implemented I/O for overall systems control: Coffee capsule detection, machine activation, etc. via serial communications with an Arduino UNO.

## EDUCATION

### SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN

B. Eng. Comp. Sci., 2016 - 2019  
CGPA: 4.77/5.0 (summa cum laude)

- SUTD Distinguished Undergraduate Scholarship - 2 in total cohort
- SUTD Honours List (Dean's List equivalent) - every eligible year
- Singapore Computer Systems Excellence Award

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SUTD-MIT Global Leadership Program, Jun 2017 - Aug 2017  
12 selected from 440 students for MIT summer exchange program

### NUS HIGH SCHOOL OF MATH AND SCIENCE

NUS High Diploma (High Distinction)  
2008 - 2013  
Honours in Physics, Biology, Chemistry  
Major in Mathematics

## SKILLS

### PROGRAMMING LANGUAGES

Python • Java • C++ • JavaScript • TypeScript

### FAMILIAR TECHNOLOGIES

PostgreSQL • RDF • Kafka • Redis  
Linux • Kubernetes • Airflow • Docker • Ethereum • OpenTelemetry • Node.js • React • d3.js • Terraform • Ansible  
GCP • GKE • BigQuery

### DATA SCIENCE

RAG • MCP • Jupyter • sklearn • numpy • pandas • matplotlib