

Tze How Lee

tzeuse@gmail.com | <https://tze.how> | LinkedIn | GitHub
Eligible for H-1B1 US-Singapore Free Trade Agreement Visa

WORK EXPERIENCE

TECHNICAL LEAD, SITE RELIABILITY ENGINEER | CITADEL

Enterprise Data | Dec 2022 - Present

- 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 across the firm targeting 99.99% uptime
- Implemented end-to-end tracing, profiling, and monitoring for services, significantly improving error visibility and traceability
- Developed internal CLI tooling for automation of production workflows, automating manual tasks and reducing risks of human error

SOFTWARE ENGINEER | SQUAREPOINT CAPITAL

Data Science & Engineering | Jun 2020 - Nov 2022

- Developed robust, performant data pipelines for timeseries datasets in collaboration with quantitative researchers
- Developed a full-stack universe management microservice 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

Internship (Dec 2018), Full-time (2019 - Feb 2020)

- 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 - 1 of 2 recipients in 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 • Node.js
React • d3.js • OpenTelemetry
Terraform • Ansible
GCP (GKE, GCS, BigQuery)
gRPC • Protobuf

ML/AI TOOLING

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