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, Full-time
- Planned, coordinated, and executed major disaster recovery exercise for firm's reference data systems
- Built high-performance gRPC services to serve both institutional and financial instrument data with sub-millisecond latency
- 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 Developer | Squarepoint Capital
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, and Kubernetes for dynamic parameterization of broker-specific API
- 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

Quantitative Developer | 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
Linux • Kubernetes • Airflow • Ethereum • PostgreSQL • Node.js • vue.js • React • d3.js • Docker • LaTeX • RDF

Data Science
Jupyter • sklearn • numpy pandas • matplotlib

Finance
Bloomberg (Terminal and Excel/Python APIs) • Options Pricing • Portfolio Risk Analysis