Tze How Lee

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EDUCATION

Singapore University of Technology and Design
B. Eng, ISTD Pillar
May 2016 to Sep 2019
CGPA: 4.77/5.0 (summa cum laude)
• SUTD Distinguished Undergraduate Scholarship - 2 in total cohort
• SUTD Honours List (Dean's List Equivalent) - A.Y. 2016/2017, 2017/2018, 2018/2019
• Singapore Computer Systems Excellence Award

Massachusetts Institute of Technology
SUTD-MIT Global Leadership Program, Jun 2017 to Aug 2017
• 12 selected from 440 students for MIT summer exchange program

NUS High School of Math and Science
NUS High Diploma
(High Distinction)
Jan 2008 to Dec 2013
• Honours in Physics, Biology, Chemistry | Major in Mathematics

SKILLS

Programming Languages
Python • C • JavaScript • TypeScript

Familiar Technologies
Linux • Kubernetes • Ethereum • PostgreSQL • Node.js • vue.js • React • d3.js • Docker • LaTeX

Data Science
Jupyter • sklearn • numpy pandas • matplotlib

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

WORK EXPERIENCE

Software Developer | Squarepoint Capital
Jun 2020 - Current, Full-time

- Worked with quantitative researchers to develop robust and performant data pipelines for numerous timeseries datasets.
- Designed and built a full-stack universe management microservice (FastAPI/Alembic, React) to allow dynamic parametrization of outgoing API requests for over 1 million unique datasets.
- Deployed and maintained on-premise implementation of Sentry, an open-source monitoring tool (Kubernetes, Helm).
- Contributed to development of internal data ingestion infrastructure, improving user experience, data ingestion speed, and load distribution.

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 relevant metadata.
- Sped up various internal tools by 80% by implementing parallelization of I/O bound daily processes.

Software Developer | traceto.io
May 2018 - Aug 2018, Summer Internship

- Created Ethereum address analysis platform for analyses of arbitrary Ethereum addresses, for transaction and activity monitoring purposes.
- Built using Python/JS and MaterializeCSS; data sourced via public APIs (e.g. Ethereum JSON RPC and Etherscan) and stored locally in PostgreSQL database.

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.