Tze How Lee

tzeuse@gmail.com
http://www.linkedin.com/in/tzehow/ | http://www.github.com/Tzeusy/

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) - Every year of eligibility
• 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
• Score of "5" for Advanced Placement Exams in Physics B, Physics C, Biology, Chemistry, Calculus AB, Statistics

SKILLS

Programming Languages
Python • Java • C
HTML/CSS/JavaScript

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

Data Science
Jupyter • sklearn • numpy
pandas • matplotlib • Tensorflow • PyTorch

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

WORK EXPERIENCE

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 from the ground-up, with UIs for non-technical users' input of trades and relevant metadata
- Sped up various internal tools by 80% by parallelizing daily processes while maintaining thread-safety with regards to database accesses

Software Engineer | 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/JavaScript and MaterializeCSS; data sourced via public APIs (e.g. Ethereum JSON RPC and Etherscan) and stored locally in PostgreSQL database

SELECT ACHIEVEMENTS AND PROJECTS

50.021 Artificial Intelligence | Best Project
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

Project Jessica | Outstanding Contribution to Pillar
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.

SIA App Challenge 2017 | Grand Champion, Student Category
Oct 2017, Interview Automation Application
- Designed an application to automate recruitment interviews via facial recognition and natural language processing.
- Implemented open source JavaScript libraries and IBM Watson to evaluate transcripts and facial expressiveness as a metric for employee suitability
- Competed with 100 other student teams; won a trip to Silicon Valley, visiting top technology companies in the San Francisco Bay Area.

Closed Circuit Tele-Computer Vision | Runners-up, Best Project
50.001 Introduction to Infosys & Programming: Sep 2017 - Dec 2017
- Used computer vision to evaluate existing occupancy levels of school locations, paired with Android application for user-end functionality.
- Trained CNN with 4150 images, a self-obtained dataset in the SUTD canteen; pulled real-time updates from a live-streaming Raspberry Pi camera.
- Model achieved test-set predictions within 1 s.d. of 8% from the label value