Seah Yew Hsing Sherwin

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EDUCATION

Singapore University of Technology and Design (SUTD) — **Singapore**
May 19 to Present

- Bachelor of Engineering (Engineering Systems and Design), Honors
- Masters in Technology and Entrepreneurship
- Attained CGPA: 4.83/5
- Focus Track: Financial Services, Minor: Artificial Intelligence and Design, Technology, and Society
- Expected Date of Graduation: August 2023
- SUTD Technology Entrepreneurship Programme (STEP) Scholarship
- Singapore Citizen

WORK EXPERIENCES

I Know First — **Singapore**
Quantitative Analyst — **May 21 – Jan 23**

- Written premium articles on trading after in-depth analysis on current stock and forex markets. Premium articles were published on the company website.
- Analyzed the returns from their signals generated from their Artificial Intelligent (AI) model by automating the back-testing process by using Python to scrap data, read signals off excel files and calculating past returns.
- Devised multiple possible trading strategies by varying choice of signal, stop loss and take profit methods to generate the highest returns. Calculate strategies Sharpe Ratio and perform Monte Carlo analysis.
- Coded a back-tester and signal assessment dashboard to analyze the profitability of their AI signals in Python.
- Coded automated dynamic portfolio manager using a mix of provided AI signals and other data sources.

Keppel Electric Pte Ltd Representative — **Singapore**
B2B Brand Ambassador, Sales Representative & Team Leader — **Nov 18 – April 19**

- Conversed with more than 60 SME CEOs, convinced, and assisted about 40 companies with switching energy providers in order to save operation costs.
- Consistently closed deals over the 6months, achieved the weekly top 25 sales performer for more than 10 times
- Lead a team of 14 people and provided them with guidance as well as "shadowed" them on the ground to teach them the ropes.

Singapore Armed Forces, Officer Cadet School — **Singapore**
Instructor — **Dec 17 - Nov 18**

- Led 2 courses, 26th and 27th Logistics Officer Cadet Course (LOCC), of about 60 cadets each with a section of ~10 men directly under my leadership.
- Conducted many In-Camp trainings and Outfield exercises for the entire course and ensured that everything runs smoothly and accordingly as planned.
- Rewrote 5 Lesson Plans in the new format to run the training more effectively, allowing the cadets to have greater value-added takeaways from the course.

ACADEMIC RESEARCH PROJECTS

Deutsche Bank — **Singapore**
Research Assistant, Coder — **Jul 22 - Present**
- Searched and collated website links to 20 banks' monetary policy statement, press release minutes, and other key information such as macroeconomic review and beige book.
- Coded Python scripts to scrape each of the webpages and collate their information neatly in their respective folders by using data automated data cleaning methods.
- Coded interactive Python scripts for a local database to interact and analyze retrieved information from scraped reports.

Personal Project — **Singapore**
Equity and Foreign Exchange Market Analysis, Coder — **Oct 19 - Present**
- Analyzed the Foreign Exchange Market using technical analysis, utilizing support and resistance, trendlines, technical indicators and candlestick patterns.
- Automated more than 50 Trading Strategies (known as Expert Advisors) with MetaQuotes Language 4 (MQL4) capable of triggering actions to open, manage and close positions based on given parameters on the MetaTrader 4 platform.
- Self-learnt fundamentals of machine learning, tuning hyperparameters for optimization and recurrent neural network.
- Currently testing out strategies through the use of Deep Reinforcement Learning Methods

Sunray Woodcraft Construction Pte Ltd — **Singapore**
Data Analyst, Machine Learning Scientist, Website Coder — **Jan 22 – Aug 22**
- Worked on a construction progress tracking solution with Sunray for my final year Capstone project.
- Deployed YOLOv5 for object detection on floor plans, OpenVSLAM for trajectory generation from 360-degree video, and Singular Value Decomposition for alignment of trajectory to floor plan.
- Created Python scripts to upload files to Google Cloud Storage (GCS) and upload this GCS file location onto MariaDB with SQL.
- Learnt and coded fully functional React Web Dashboard for users to track construction progress which interfaces with hosted database.
- 3D modelled and 3D printed attachment to secure 360-degree camera on construction helmet securely.

Singapore University of Technology and Design — **Singapore**
AXA Investment Managers, Team leader, Data Analyst, Dashboard Coder — **Aug 20 – Dec 20**
- Collaborated with AXA Investment Managers as an industry partner for Data and Business Analytics module.
- Led my team to assist AXA with designing and coding a Dashboard in Python using Dash, Pandas, Numpy, Matplotlib and Plotly packages to analyze different factors that can affect the returns of the companies.
- Dashboard can used to analyze companies in different sectors and industries
- We were able to meet all their requirements and the client were impressed by the outcome

Singapore University of Technology and Design — **Singapore**
UROP Internship, Data Analyst — **May 20 – Aug 20**
- Analyzed and visualized the change in virtual water transfers in the Laotian electricity grid.
- Cleaned and worked with 8GB of data required for the project.
- Visualized the data by making multiple plots using matplotlib, bokeh plots and Q-GIS and drawing inferences from the plots by analyzing them.
- Concluded that the monsoon seasons does directly impact the output of the hydroelectric power plants.

A*Star, Institute of High-Performance Computing — **Singapore**
Biologically Inspired Nanostructured Reflective Metasurfaces, Coder — **Nov 15 – Dec 15**
- Studied how Cataglyphis, a genus of dessert ants, reflect heat off its body to survive in the Sahara desert and created a simulation in MATLAB, to see how the solar spectrum is reflected off the triangular shape of its hair.
- Made use of a supercomputer to run millions of simulations on a grid occupied by either air, silicon dioxide or aluminum oxide to find the most optimal pattern to reflect the solar spectrum.
- We were able to generate a pattern that reflects off more than 85% of the solar spectrum. However, the pattern for such a surface is still too hard to create with today's technology.

CO-CURRICULAR ACTIVITIES

ROOT, SUTD Student Government **Singapore**
Orientation Programmes Director **Sep 19 – May 20**

- In charge of planning the Freshman Orientation Camp in 2020 to make it fun for the incoming freshies and ensure that the event would run smoothly. I will also be executing the Orientation Camp on the day itself.
- Planned and executed Orientation Group Leaders' Camp in Jan 2020 where more than 100 students attended to test out new games and obtain their feedbacks to make improvements to the actual camp.

RECENT AWARDS

- Freshmore Terms SUTD Honours List 2020
- Niometrics Data and Business Analytics Award 2020
  - Highest score for Data and Business Analytics module
- Citi HackOverflow 2021 2nd Place
- Sophomore and Junior Terms SUTD Honours List 2021
- Keppel Awards of Excellence 2022
  - Top 2 students in ESD pillars in Sophomore and Junior year
- Senior Terms SUTD Honours List 2022
- Financial Services Award 2022
  - Best overall performance for courses in the Financial Services Focus Track for the year 2022

ADDITIONAL INFORMATION

- Proficient in Python, SQL, MQL4, R, Flutter, React, Blender, 3D Printing
- Proficient in Microsoft Office, MS Excel, MS Word, MS Presentation
- Proficient in Adobe Photoshop, Illustrator, Premiere Pro
- Fluent in English (spoken and written) and Mandarin (spoken)
- Enjoys exercising, learning, innovating, solving problems and analyzing the markets