Tan Zhuo Yao

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EDUCATION

National University of Singapore   **Aug 2019 – Present**

- Bachelor of Computing (Hons) in **Computer Science** (School of Computing) with a **Minor in Statistics**

- Expected Date of Graduation: May 2023   - **GPA: 4.62/5.00 (First Class Honors)**

Raffles Institution   **Jan 2011 – Dec 2016**

- **Integrated Program**, Raffles Diploma with Merit   - **GCE A Level: 87.5/90 Rank Points**

WORK EXPERIENCE

Software Engineer Intern at JPMorgan Chase   **June 2022 – Present**

- Corporate and Investment Banking Division, Regulatory Reporting

Software Engineer Intern at Switcheo Exchange   **May 2021 – Nov 2021**

- Designed and implemented the persistence of off-chain trade and ordering data into various databases to reduce SQL calls and enhance speed.
- Migrated and restructured Switcheo Tradehub's blockchain codebase to support the Cosmos Stargate upgrade, to optimise for cross-chain interoperability.

Private Math Tutor   **Nov 2018 – Present**

- Adapted to students' learning needs, providing answers to students' queries and sparking their interest in Math.
- Tutored over 15 students, all while balancing pursuing a full-time degree.

PROJECTS

The Bear Market Non-Fungible Token   **Aug 2021 – Present**

- Conceptualised and spearheaded the development and deployment of Scilla Smart Contracts onto Zilliqa blockchain to facilitate minting and trading of 10,000 Non-Fungible Tokens (NFT). Tested thoroughly and prevented potential contract exploits. The contract handled $2.1 million in transactions over a span of 3 days.
- Implemented a backend API server to handle NFT data and support GET and POST requests from frontend side.
- Collaborated with Product and Design professionals to implement a seamless web application for purchase and revealing of Non-Fungible Tokens (NFT)
- Web Application: https://thebear.market
- NFT Smart Contract: https://viewblock.io/zilliqa/address/zil167flx79fykulp57ykmh9gnf3curcnyux6dcj5e

SWEe! Flashcard Application   **Aug 2020 – Nov 2020**

- Designed, implemented and released a GUI CLI flashcard application to aid students with learning
- Implemented filtering feature of flashcards to filter flashcards based on category, ratings, favourite status etc.
- Documented the software implementations in a User Guide and Developer guide
- GitHub Repo: https://github.com/AY2021S1-CS2103T-T17-2/tp

SkyX Flight Pricing Tracker   **May 2020 – Aug 2020**

- Developed a web scraper to scrape for flight prices to various destinations daily and store data onto Firebase.
- Implemented a charting system to chart flight prices similar to a stock chart, with additional data such as monthly high and low and, monthly average and all-time average price for further data analysis.
- Tech stack: ReactJS, JavaScript, Selenium, Highcharts, Firebase
- GitHub Repo: https://github.com/tanzhuoyao-nus/SkyX

ACADEMIC EXPERIENCE / ACHIEVEMENTS

Jane Street Electronic Trading Competition – Overall Winner   **Oct 2020**

- Participated and won the Jane Street Electronic Trading Competition where my team had to design and code out a bot to execute trades based on algorithms. We were tasked to trade bonds, stocks, ETFs and ADRs.
- Emerged 1st place with our team's trading bot being the most profitable.

Notable course works   **Aug 2019 – Present**

- Discrete Structures (CS1231S) – A+
- Introduction to Artificial Intelligence (CS3243) – A
- Linear Algebra (MA1101R) – A
- Probability and Statistics (ST2334) - A
- Fundamentals of Physics I (PC1221) – A+

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, Go, C, HTML5, CSS3, JavaScript, ReactJS, Scilla
- **Database:** Firebase, PostgreSQL

CO-CURRICULAR EXPERIENCE

Interact Club – Organising Committee   **Jan 2011 – Nov 2016**

- Organised and hosted a Dine in The Dark charity event to allow over 500 event participants to better understand the struggles of the visually impaired by dining in complete darkness.
- Volunteered at Jamiyah Children's Home on a weekly basis, providing tutoring services to less privileged children

- Underwent flying lessons and achieved a first solo flight in a DA-40 aircraft.