

Tan Zhuo Yao

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Personal Portfolio: <https://tan-zhuoyao.github.io/portfolio/>

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

University of North Carolina Chapel Hill

Jan 2022 – May 2022

- Student Exchange Program

GPA: 4.00/4.00

Raffles Institution

Jan 2011 – Dec 2016

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

WORK EXPERIENCE

Summer Analyst (Software Engineering) at JPMorgan Chase

Jun 2022 – Aug 2022

- Corporate and Investment Banking Division, Regulatory Reporting team
- Designed and developed a backend service for archiving regulatory reports while attaining 90% code coverage

Software Engineer Intern at Switchco Labs

May 2021 – Nov 2021

- Architected and implemented the persistence of off-chain trade and ordering data into databases to reduce SQL calls and enhance speed up to 10,000 transactions per second
- Migrated and restructured Switchco Carbon's blockchain codebase to support the Cosmos Stargate upgrade, to optimise for cross-chain interoperability, with over US\$130,000,000 transacted on-chain
- Carbon Website: <https://carbon.network/>
- Conceptualised and spearheaded the development and deployment of Scilla Smart Contracts onto the Zilliqa blockchain to facilitate minting and trading of 10,000 Non-Fungible Tokens (NFT) tested to potential contract exploits
- The contract executed \$2.1 million in transactions over a span of 3 days
- Coded and deployed a backend API server with Express.js to handle NFT data transactions through an in-house NFT marketplace named ARKY, which facilitated over 5,000,000 ZIL in transactions till date
- ARKY website: <https://zilswap.io/arky/discover>
- Collaborated with Product and Design professionals to construct a seamless web application for minting and revealing of Non-Fungible Tokens (NFT)
- Web Application: <https://thebear.market>
- NFT Smart Contract: <https://viewblock.io/zilliqa/address/zil167flx79fykulp57ykmh9gnf3curcnyux6dcj5e>

PROJECTS

SWEe! Flashcard Application

Aug 2020 – Nov 2020

- Designed, developed and deployed a CLI-like GUI flashcard application to aid students with learning
- Engineered the filtering feature of flashcards to filter flashcards based on category, ratings and favourite status
- Documented the software implementations in a User Guide and Developer guide
- GitHub Repository: <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 10 destinations daily and store data onto Firebase.
- Designed 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 Repository: <https://github.com/tan-zhuoyao/SkyX>

ACADEMIC EXPERIENCE / ACHIEVEMENTS

Jane Street Electronic Trading Competition – Overall Winner

Oct 2020

- Led a team of 4 and achieved 1st place at the Jane Street Electronic Trading Competition out of 15 teams
- Designed and coded out a bot to execute trades based on algorithms. The bot traded on bonds, stocks, ETFs and ADRs
- Led the team on trading strategies and the tuning of trading parameters throughout the competition
- Achieved at total of \$1,792,817 in P/L within 8 hours of trading

Notable course works

Aug 2019 – Present

- Discrete Structures (A+), Introduction to Artificial Intelligence (A), Linear Algebra (A), Probability and Statistics (A)

TECHNICAL SKILLS

- Programming Languages:** Python, Java, Go, C, HTML/CSS, JavaScript, Scilla
- Frameworks:** ReactJS, React Native, Spring Boot, Express.js
- Database:** Firebase, PostgreSQL, Oracle