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EDUCATION

Singapore	Nanyang Technological University	Jul 2021 - Expected May 2025

- Bachelor of Engineering in Computer Science
- Under the CN Yang Scholarship, awarded to only 31 recipients within the batch

Current CGPA: 4.91/5.00
Dean's List for AY21/22

WORK EXPERIENCE

Full Stack Software Engineer	LabCI Limited	Sept 2021 – Present

- Spearheaded the development of a technical analysis algorithm for financial datasets, further allowing development of advanced financial tools.
- Developed and maintained an Express API integrating financial data from multiple sources - eventually deployed to production and used by external companies such as HSBC.
- Collaborated with developers to create a React web application with modular widgets which queries and displays real time data from financial data sources.

Data Analyst	Ministry of Health, Singapore	Dec 2020 – Apr 2021

- Introduced and advocated for a new workflow, greatly improving dissemination of information between different divisions when a newly introduced MOH guideline affected inter-divisional data needed.
- Refined and maintained codebase in Python and Stata to enhance data processing ability, greatly reducing time needed to manually process data.
- Consolidated and coordinated Covid-19 information from relevant sources into figures and charts for press release.

PROJECTS

Research Attachment	Nanyang Technological University	July 2022 – Present

- Developed and implemented an algorithm for object detection and tracking of drones from a main drone using dual panoramic cameras with YOLOv5 and SORT, matching drones across cameras (ROS, C++).

Making and Tinkering	Nanyang Technological University	May 2022 – Aug 2022

- Repurposed a Delta 3D printer with additional 3D printed parts into a CNC machine with computer vision capabilities.
- Implemented a low-powered computer vision algorithm working on a Raspberry Pi able to detect, identify and sort screws into allocated positions with reasonable accuracy. (Python, OpenCV)

Student Ambassador	TZ APAC	Dec 2021 – Present

- Collaborated with NUS to host regular workshops on blockchain and the Tezos ecosystem.
- Hosted ad-hoc workshops for other institutions such as ITE College Central and EWHA Womans University.

MLDA Lab	Nanyang Technological University	Sept 2021 – Present

- Hosted various workshops on Machine Learning and Data Analytics topics including but not limited to Neuromorphic Computing, Computer Vision, Time Series forecasting, free for all to attend.
- Carried out interactive hands-on sessions to allow attendees to better understand and grasp concepts taught.

Others

- **Algorithm Visualizer** – A React web application for visualization of some sorting algorithms and a simple pathfinding algorithm. Uses the Material UI library.
- **BubbleteaSort** – A mobile application acting as a social media and outlet locating platform for buble tea enthusiasts. React Native framework used for application development and Firebase for data storage and authentication.

Awards and Achievements

- **National Champions, RoboCup Rescue Line (2018):** Programmed an autonomous line-tracking robot in C++ (Arduino) with ball capturing and sorting capabilities. Represented Singapore in RoboCup Montreal for the Rescue Line Category.
- **Champions, NUS Data Analytics Competition (2022):** Analyzed geospatial datasets in Python featuring transport data in Singapore and Jakarta provided by Grab to formulate solutions to tackle the problem of late arrivals.
- **1st Runner Up, TezAsia Hackathon (2022):** Launched an NFT Marketplace for users to mint and view 3D panoramic NFTs on the Tezos blockchain in React, Express and SmartPy.
- **1st Runner Up, Cyberleague Singapore (2022):** Participated in a tournament-style CTF competition, solving cybersecurity challenges and attacking intentionally vulnerable systems.

Skills

- Languages: Javascript/HTML/CSS, Python, C++, SQL
- Frameworks and Libraries: React, Vue, React Native, Flutter, Node.js, Express.js
- Tools: Git, Linux, Docker
- Others: TensorFlow, PyTorch, OpenCV, SmartPy