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EDUCATION

Nanyang Technological University (NTU)

Aug 2019 – May 2023 (Expected)

- **Bachelor of Engineering (Electrical and Electronic Engineering)**
- **CGPA: 4.40 / 5.00** (Expected: Honors with Distinction)
- **Relevant Modules:** (1) *Introduction to C Programming* (2) *Data Structure and Algorithms* (3) *Introduction to Data Science and Artificial Intelligence* (4) *Artificial Intelligence and Data Mining* (5) *Web Application and Design* (6) *Machine Learning Design and Application*

Virtual Training and Learning Development

- **Udemy Relevant Modules:** (1) *Deep Learning: Recurrent Neural Networks in Python*, (2) *Data Structures and Algorithms Python*, (3) *Django with React*, (4) *The Complete Flutter Development Bootcamp with Dart*

PROJECTS

NTU Design and Innovation Project:

Aug 2021 – Dec 2021

Blockchain-based Energy Trading Platform for Microgrids (Team of 5)

- Awarded **1st place** in the sustainability category among other projects
- Engineered smart contracts with **Solidity** for people to trade energy on the blockchain platform with cryptocurrency
- Developed website through **Web3** and **ReactJs** for ease of accessibility and trading on the platform
- Created Local Ethereum Blockchain Network using **Go Ethereum** to simulate and test processes on the blockchain trading platform

NTU Final Year Project:

App for Predicting Stock Price Fluctuations with Neural Network

Aug 2022 – May 2023

- Achieved good performance with **low Root Squared Error** for prediction results
- Programmed a Machine Learning Model with **LSTM Neural Network** Algorithm using **TensorFlow** and **Python**
- Developed the application frontend with **ReactJs**, **Redux**, and **Material UI**
- Designed and fabricated a trading bot with Python and **Flask** as the API Server

ProShop Ecommerce Project

Oct 2022

- Developed a full stack web application with **ReactJS** and **Django**
- Managed frontend component states and layout with **Redux** and **Bootstrap**
- Designed and implemented the database architecture with **PostgreSQL**

Social Media Application

May 2023

- Explored with **T3 Stack** Application
- Designed and Developed the Frontend Application with **Tailwind CSS**
- Programmed a Backend API with **trRPC**, **NextJs** API and **Prisma** for database models
- Hosted the Database on Serverless MySQL platform **PlanetScale**

INTERNSHIP

NEC APAC – Summer Intern (Public Safety Business Development)

May 2021 – Jul 2021

- Executed test cases with use of Lidar Sensors to detect social distancing in crowds
- Simulated real-life crowd movement using **Python** application for more test cases
- Designed and deployed the applications to **Docker** and **Azure Cloud Services**
- Pushed data from Lidar Sensors into Azure Cloud Database and local database such as **PostgreSQL** and **MsSQL**

Panasonic R&D – Full Stack Developer Intern

Jan 2022 – Jul 2022

SISP Improvement Project

- Enhanced existing SISP system built upon **Flask** and **Python**
- Created new databases for the system with NoSQL such as **MongoDB** and **Redis**
- Connected many IoT devices to the system such as tracking TOF sensors and gate system
- Integrated a new frontend platform into the SISP system with **Typescript** and **NextJs**

Proof of Concept: TOF Sensors for Human Detection

- Developed a module to track human movements with the use of TOF sensors
- Designed a customized webpage for reflecting data with **Figma**
- Created a dashboard based on the **Figma** design with **HTML**, **CSS**, and **JavaScript**
- Demonstrated the final product to potential clients

LEADERSHIP / CO-CURRICULAR ACTIVITIES

Hall 12 Block Manager (NTU)

Aug 2019 - May 2020

- Coordinated hall get together events for respective blocks
- Disseminated information to residents

Hall 12 Badminton Captain (NTU)

Aug 2020 – Mar 2021

- Conducted weekly training sessions for all residences residing in Hall 12
- Mentored members to play badminton

SKILLS / HOBBIES

- **Languages:** Fluent in English and Chinese (Mandarin); conversational in Japanese
- **Web Development Tools:** Github, HTML, CSS, JavaScript, ReactJs, NextJs, Web3, Redux, Django, Flask, Docker
- **Machine Learning Tools:** Tensorflow, Numpy, Pandas
- **Programming Languages:** Python, Javascript, Typescript, C
- **Applications:** Microsoft Office 365 (Excel, Word, PowerPoint)
- **License:** Driving License Class 3A
- **Hobbies:** Sports (Badminton)