

Tan Ye Quan

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EDUCATION

Nanyang Technological University, Singapore

Aug 2020 – May 2024 (Expected)

- **Bachelor of Engineering (Computer Science), Honors (Distinction)**
- Relevant modules: Data Structures and Algorithm, Object Oriented Design and Programming, Database System Principle

EXPERIENCE

Government Technology Agency

Jan 2023 – Present

Software Engineer, Intern

- Designed and developed an automated process for migration of project repositories using GitLab CI/CD pipeline and ChatOps (Workato Slack Bot). Utilised webhook triggers for GitLab pipelines and AWS Lambda functions
- Executed Full-Stack Development to create a DevSecOps maturity report in compliance with industry best practices. Technologies used include Next.js, Golang and AWS RDS. Incorporated Gitlab CI/CD pipeline for seamless deployment

MANN+HUMMEL Ventures Pte Ltd

May 2022 – Jul 2022

Software Engineer, Intern

- Spearheaded the development of Data Input Tool website hosted on an AWS ec2 instance (centOS) and connected to AWS RDS PostgreSQL. Leveraged the Django Framework (HTML, CSS, Javascript, Python)
- Applied agile methodology during projects, ensuring deliverables are met at the end of each sprint cycle
- Analysed trends and identified key features that made machine learning model outperform workers' prediction in stocking up inventories

ACADEMIC PROJECTS

Advanced Software Engineering Project

Aug 2022 – Nov 2022

- Built a web application using ReactJS and NodeJS with MySQL database
- Implemented a user-friendly food inventory tracking system, enabling users to efficiently manage their food supplies. Integrated with the Spoonacular API to suggest recipes based on available food in their inventory

Natural Language Processing Project

Aug 2022 – Nov 2022

- Developed an application to do sentimental analysis and classification on tweets on Tesla with models like RoBERTa, VADER and XGBoost with an accuracy of 87.6%
- Spam and objectivity detection was applied to sieve out relevant data before applying subjectivity detection

Multi-Disciplinary Design Project

Aug 2022 – Nov 2022

- Developed Hamiltonian Path with Shortest Path Algorithms for the robot to move through a 20x20 grid to avoid obstacles and detect required images
- Established server-client network connection with Raspberry Pi via Socket Programming to send over movement commands to the robot via the Raspberry Pi

PERSONAL PROJECTS

XV Mart

Jun 2023 – Jul 2023

Online mini-mart

- Developed a mobile-responsive Full-Stack development application using ReactJS, Tailwind CSS, ExpressJS and Firebase
- Performed data analytics on product sales to identify trends, enabling staff to make accurate estimations for purchasing in-demand products
- Implemented an online food purchasing system within the hall, eliminating the need to physically visit the mini-mart. Resulted in optimised manpower allocation and improved end-to-end operational efficiency

NTU-AI4IMPACT Chatbot Datathon 2021 (Finalists)**Jun 2021 – Jul 2021****Title: Chatbot for Insurance Institution**

- Built a chatbot function to obtain customer information requirements to help fill in application forms to be submitted to the Insurance Company

IET-NTU Data Analytics Case Challenge 2021 (Finalists)**Mar 2021 – Apr 2021****Title: E-commerce Analytics**

- Conducted statistical analysis of data using Python to understand customers better such as evaluating conversion rate and retention
- Performed segmentation analysis of customers based on behavioural data (procedures like clicking an item, adding to favourites, adding to cart)

LEADERSHIP & CO-CURRICULAR ACTIVITIES**Nanyang Technological University, Singapore****Financial Controller (Freshman Orientation Programme)****Sep 2022 – Sep 2023**

- Responsible for all monetary transactions and claims procedures for Hall 15's FOP
- Ensured consistency and accuracy of balance sheets and budgeting managements

Nanyang Technological University, Singapore**Sports Director, 21st Hall Council (Hall of Residences 15)****Aug 2021 – Sep 2022**

- Manage and coordinate between the captains of the various sports CCAs for trainings
- Planning and executing events for residents of the Hall together with the other Council Executives

SKILLS**Languages:** English, Mandarin**Programming:** Python, C, Java, HTML/CSS, Javascript, Typescript, Golang**Frameworks:** Django, ReactJS, NodeJS, NextJS, ExpressJS**Skills:** Git, Bitbucket, SQL(MySQL, PostgreSQL), NoSQL(Firebase), GitLab, Docker**Online Courses:** Using Database with Python (Coursera), Introduction to SQL (Coursera), Docker for Beginners (Udemy)