

# TAN SONG YUN

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*Aspiring to be the engineer behind innovations, I am highly passionate about full-stack software development and seeking to employ my abilities in value creation. As an inquisitive person eager to find opportunities to grow, I am committed to upgrading my skills. My experiences have honed my perseverance and trained me to become a reliable team player today.*

## PROFESSIONAL EXPERIENCE

**Software Engineer and Machine Learning Intern**, DSO National Laboratories May 2021 – Jul 2021

- Enhanced and adapted deep-learning models to extract and remove text cleanly from meme images with OpenCV, Tensorflow, PIL, as compared to the baseline model which has visual artifacts
- Received strong recognition from staff, who subsequently integrated improvements into other projects
- Programmed a web-based application that deploys the models, displays images from a database along with an intuitive frontend editor to dynamically modify text on images using Vue.js, Quasar, HTML Canvas

**Full-Stack Software Engineer Intern**, Yoozoo Games May 2020 – Jul 2020

- Developed a robust AI chatbot serving as smart receptionist with 10 functions using Rasa and Python
- Built an interactive chatbot user interface with Speech-to-Text/Text-to-Speech capabilities for prospective MNC clients and internal projects with React.js, Node.js, HTML, CSS, Flask, Postman, Azure Cloud Service

**App Development Intern**, Defence Science Technology Agency (DSTA) Jan 2019 – Mar 2019

- Programmed an Android application targeting Wi-Fi vulnerability with Java and XML on Android Studio
- Utilized location services to reduce risk of Wi-Fi exploits by hackers, especially when complimentary Wi-Fi services are provided by public agencies and protection measures are generally neglected

## ACADEMIC QUALIFICATIONS

**Nanyang Technological University (NTU)**, Renaissance Engineering Programme Aug 2019 – Dec 2023

- Bachelor of Engineering Science (Computer Science) and Master of Science in Technology Management
- Renaissance Engineering Programme (REP) Scholarship
- CGPA of 4.74/5.0

**Hwa Chong Institution (Junior College)** Jan 2017 – Dec 2018

- GCE 'A' levels with 6 Distinctions and University Admission Points of 88.75/90
- Hwa Chong Diploma with Merit, Edusave Entrance Scholarships for Independent Schools (EESIS)

## EXTRA-CURRICULAR ACTIVITIES

**Project Lead**, REP Humanitarian Engineers and Leaders (HEAL) Sep 2019 – Sep 2021

- Led team of 9 to engineer an energy and cost-efficient machine that generates purified water from atmospheric humidity, aiming to make a meaningful impact on less-privileged overseas communities
- Pioneered the project and inspired team to share ideas, while making crucial decisions on project direction and establishing new relationships with Mistletoe Japan's Audacity team and NUS professor

**Chair of Cultural Night**, NTU Tanjong Hall of Residences Sep 2019 – Sep 2020

- Planned a concert with a budget of 6000 dollars while directing numerous meetings with hall captains
- Organized many other events, including a university-wide dance competition involving over 600 dancers
- Handled uncertainty and adapted well amidst the COVID-19 situation by revamping into an online event

## RELEVANT SKILLS

**Languages:** English (Native), Chinese (Full Professional Proficiency)

**Programming Languages:** Python, JavaScript, Java, C/C++, HTML, CSS, R, SQL, XML

**Libraries/Frameworks:** React.js, Node.js, Vue.js, Pandas, dplyr, Flask, Quasar, Rasa, OpenCV, Tensorflow, PIL

**Projects/Hackathons:** NTU Course Registration System, Shopee Code League 2020, Govtech Stack the Flag 2020

## OTHER NOTABLE EXPERIENCES

- Group Leader, NTU Tanjong Hall Orientation Camp (2020)
- Medical Affairs Intern, Novartis Oncology (2019)
- Grassroots Attachment Programme @ Marsiling – Yew Tee GRC (2018)