

GOH JET WEI

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EDUCATION

Singapore University of Technology and Design

2023 - 2027

- Current GPA: 4.5/5
- Bachelor of Engineering (Computer Science and Design (CSD))
- SUTD Honours And Research Programme (SHARP)
 - Exposure to various research frontiers of scientific fields such as Chaos Theory, Quantum Computing, Quantum Chemistry, Electronic Materials, Cryptography, Metaheuristic Optimisation, Transformers, etc.

Temasek Junior College

2019 - 2020

- 'A' Level Rank Points: 86.25 (PCME: H2 Physics, H2 Chemistry, H2 Mathematics, H1 Economics)
- 4 Distinctions (in all Sciences and Mathematics)

Pasir Ris Secondary School

2015 - 2018

- 'O' Level L1R5: 9 (Triple Science: Pure Physics, Pure Chemistry, Pure Biology, Advanced Mathematics)
- 5 Distinctions (in all Sciences and Elementary Mathematics)

ACADEMIC PROJECTS

Hackathons

NiCE Hack Hackathon 2024 (Hardware Security)

Sep 2024

- Took part in this 2-day cybersecurity at National Technological University (NTU) in a team of 2 under the University category and achieved a **Certificate of Merit** (top 5 out of 45 teams) in the hardware security challenge to carry out Side-Channel Attacks (SCA) to exploit (simulated) information leaks from hardware implementations of cryptographic algorithms to retrieve sensitive data (e.g. encryption keys). Points are awarded based on the time taken to complete the SCA.

Undergraduate Research Opportunities Programme (UROP)

Human-in-the-loop Learning Algorithms for Intelligence In Smart Cities

May 2024 – Present

- Part of a research team developing a robust, novel framework that integrates Human-in-the-loop (HITL) into Reinforcement Learning algorithms in a simulated Air-Con Gymnasium Environment to allow the agent to find the optimal air-con temperature at any time. Contributed to the understanding and learning from related-research papers, coding, experimentation, and documentation of the novel framework. As a co-author for the 'Human in the Loop Learning for Energy Savings in Centralized Air-Conditioned Public Spaces' paper, which documents the novel framework, we aim to submit the paper to different workshops.

Telegram Chatbot for novice programmers to learn coding

May 2024 – Present

- Created a telegram chatbot using the Telegram Bot API (Python) and a Chatbase Large Language Model (LLM) from the Chatbase API (using the Requests and JSON (Python) libraries) and deployed using Vercel. Linked the telegram chatbot to a Firebase API (Python) NoSQL Database and a Streamlit website designed with Figma (for website prototyping). Trained the LLM model with school notes and problem datasets as well as integrated a prompt engineering library. Novice programmers can use the telegram chatbot to understand school notes better and obtain a more immediate response during practice to facilitate learning

Design, build and test a low-cost MRI console (Spectrometer)

Jan 2024 – Apr 2024

- Aided in understanding the code documentation for the Open-source Console for Real-time Acquisition (OCRA) and the Red Pitaya 'single board computer' (SBC) hardware, as part of the project to build a low-cost MRI console. Contributed to understanding the mapping of the addresses for the FPGA pins of the Red Pitaya 'single board computer' (SBC) hardware

SUTD 3.007 Design Thinking and Innovation (DTI) Term 2 module

Project LambLens

Jan 2024 – Apr 2024

- Collaborated with a team of other SUTD students to create a functional prototype of a realtime, aesthetic display of the lift status, titled 'LambLens'. Contributed to the construction of the prototype model, the creation of a demonstration Blender animation, as well as informative A3 posters on the idea using Canva, Adobe Illustrator and Photoshop.

AWARDS

SUTD Global Merit Scholarship

2023 – 2027

NiCE Hack Hackathon 2024 – Merit	2024
TJC Academic Excellence Award	2021
<ul style="list-style-type: none"> In recognition of subject excellence and all-around academic excellence 	
TJC ACE Award	2021
<ul style="list-style-type: none"> In recognition of holistic excellence in studies and leadership 	
UNSW ICAS Science - Credit	2017
National Youth Achievement Award - Bronze	2017
UNSW ICAS Science - Credit	2016

CO-CURRICULAR ACTIVITIES

SUTD ROOTech Department (Student Government)	2023 – 2024
<i>SUTD ROOT Website FAQ Forum and Hotlines Page</i>	Apr 2024 – Dec 2024
<ul style="list-style-type: none"> Collaborated with other members of ROOTech Department and ROOT Student Relations Department in revamping the SUTD ROOT Website. Contributed to designing and creating the Frequently-Asked-Questions (FAQ) forum and Hotlines page components to help assimilate new students using Figma (for website prototyping), React (JavaScript), Node.js (JavaScript) and Redis (JavaScript) 	
<i>DiscoverSUTD Event Proposal, Approval and Publishing Automation</i>	Apr 2024 – Dec 2024
<ul style="list-style-type: none"> Collaborated with a team of other SUTD ROOT members to organize 'DiscoverSUTD', a 4-week annual event after matriculation day consisting of a series of mandatory events organised by SUTD school leaders and introductory sessions organised by clubs and interest groups in SUTD for new students. Contributed to creating an automated SUTD events application, approval and publishing system using Zapier, Tally form, Google Sheets and Notion Calender 	
<i>SingUTD Karaoke Event Song Queue Display and Registration Websites</i>	Sep 2023 – Dec 2023
<ul style="list-style-type: none"> Collaborated with a team of other SUTD ROOT members to organise a karaoke event titled 'SingUTD'. Contributed to creating a singer registration website and a song queue display website using Streamlit (Python) (Frontend) and Firebase API (Python) (Backend Database) to facilitate the karaoke event 	
SUTD University Ambassadors, UA	2023 – Present
Vocomotives (Acapella)	2023 - Present
Badminton (Competitive)	2015 – 2020
Students' Council	2016 – 2018
<i>Deputy Head of Training and Development</i>	2017 – 2018
<ul style="list-style-type: none"> Organising Committee for Student Leadership Camp 2017 	
Choir	2015 – 2018
<i>Section Leader for Bass</i>	2017 – 2018
<ul style="list-style-type: none"> Assisted in teaching songs to the bass section for Singapore Youth Festival (SYF) 2017 and obtained Certificate of Distinction Organising Committee for Choir Camp 2017 	

ADDITIONAL SKILLS

- Programming Languages
 - Proficient in Python, SQL (MySQL)
 - Entry-level proficiency in JavaScript, C#
- Programming Frameworks
 - Proficient in Scikit-learn, Streamlit, Numpy, Pandas, Matplotlib
 - Entry-level proficiency in Unity (C#), Firebase API (Python), Telegram Bot API (Python), Chatbase API (Python), OpenAI API (Python), tkinter (Python), React (JavaScript), Redis API (JavaScript)
- Programming Concepts (learnt in Python)
 - Machine Learning (ML) Algorithms and Reinforcement Learning (RL) Algorithms
 - Data Structures and Algorithms (Search and Sort Algorithms) (DSA)
 - Object-Oriented Programming (OOP)
- Others
 - Proficient in Figma, Zapier, Github Desktop
 - Entry-level proficiency in Blender, Rhino and Grasshopper, Abode Illustrator, Abode Photoshop, Ultimaker Cura (3D printing), Canva, Vercel
- Fluent in English and Mandarin (Both spoken and written)