

Shawn Chan

shawnkengkiat@gmail.com | (+65) 9372 9961 | www.linkedin.com/in/schan019 | <https://github.com/shawnkchan>

EDUCATION

Nanyang Technological University

Aug 2021 – Dec 2025

B.Eng.Sc(Mechanical Engineering) & MSc (Technology Management), Minor in Computer Science

- Attained Cumulative Grade Point Average (CGPA) of 4.60/5.00. (Projected Honours - Highest Distinction)
- Sophomore at NTU pursuing the Renaissance Engineering Programme (REP), NTU's flagship direct Masters Engineering Programme with full ride-on scholarship
- **Relevant Coursework:** Operating Systems, Databases, Computer Security, Data Structures, Efficient Algorithms and Intractable Problems, Machine Learning for Energy Transportation, Data Analysis

Anglo Chinese School (Independent), International Baccalaureate (IB) Programme

Feb 2017 – Oct 2018

'IB' Level Certification

- Achieved 44/45 points for the IB final year examinations, 7s for all Higher-Level subjects (Physics, Mathematics, and Chemistry)

WORK EXPERIENCE

Software Engineer, Bank of New York Mellon

June 2024 – October 2024

- Constructed proof of concept applications as a full-stack engineer for internal tools used by the bank's businesses
- Collaborated with UI/UX designers to implement 6 key features in Angular, TypeScript, HTML, SCSS, Redux
- Designed and implemented backend, REST APIs, and OAuth2 authentication using Django framework
- Built and refined 8 key APIs to pipe and collect data for a future AI model
- Participated in daily stand-ups and working according to Scrum methodology

R&D Engineer, Defence Science Organisation

May 2023 – July 2023

- Conceptualised and designed a novel, compact, and lightweight drone that can be manufactured in a single print
- Leveraged ANSYS, and Python to analyse chassis design, ensuring structural rigidity
- Utilised Solidworks to create CAD models of the drone and its components
- Achieved weight savings of 16% and a 2.4 Factor of Safety for the drone's frame

AWARDS & ACHIEVEMENTS

2nd Runner up, Singapore Amazing Flying Machine Competition (SAFMC)

Feb 2022 – Mar 2022

- Developed, tested, and refined algorithms to control a modified drone using hand gestures in C and Python
- Designed components for the team's drone using CAD (Fusion360)

2nd Runner up, ASEAN Data Science Explorers

Aug 2021 – Feb 2022

- Pitched and devised a progressive policy system to encourage sustainability in ASEAN SMEs
- Generated insights from raw data using SAP Analytics to understand the financial and environmental trends of ASEAN SMEs

CO-CURRICULAR ACTIVITIES

Space Enterprise at Berkeley

Aug 2023 – November 2023

- Using Python to simulate the dynamics, forces, and performance on rockets

Co-head, Makers Lab

Aug 2022 – May 2023

- Lead a club of 33 members within REP to learn and employ practical engineering skills taught in the club
- Organising and coordinating projects for the club's members to refine their hardware and software design skills

PROJECTS

2D Tile Game

- Designed and built a 2D tile-based game from scratch in Java
- Applied Object Oriented concepts to optimise the use of classes by abstracting features
- Implemented and coded Binary Space Partitioning algorithm from scratch to generate random worlds based on a given number
- Lead architecture and design decisions of a state machine to handle game logic
- Pair programmed with another student to increase efficiency

Breakify

- Built a mobile application in Dart using the Flutter framework for Google Solutions Challenge 2023
- Conceptualised UI/UX design using Figma and constructed them in application
- Integrated Google Maps using Maps API to generate nearest points of interest from user

EzDebts

- Telegram bot built to manage expenses amongst friends
- Enables users to add, delete, and simplify incurred debts through telegram commands
- Learnt about CI using Github actions, as well as E2E and unit testing with Pytest
- Utilises Django for management of backend

SKILLS, INTERESTS

- **Skills:** Go, Python, C, Java, JavaScript, TypeScript, SQL, HTML, CSS, Django, Flutter, Dart, React, Go, Angular, Git, Pandas, Arduino, SolidWorks, ANSYS, Fusion360
- **Interests:** Drawing, software projects, reading, 3D printing tools/items