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Availability: 1 September 2025 - 16 January 2026

EDUCATION

Singapore University of Technology and Design

Sep 2023 to May 2027

- Bachelor of Engineering (Computer Science and Design), Honours
- Singapore Chinese Chamber of Commerce and Industry (SCCCI) Scholar

GPA: 4.50 / 5.0

Relevant Coursework: Probability and Statistics, Multivariable Calculus, Linear Algebra, Data Structures and Algorithms, Information Systems and Programming, Software Construction, Computer System Engineering, Database Systems

EXPERIENCES

Optimizing Central Provident Fund (CPF): Empowering the Less Fortunate

Student Researcher, University Research Opportunities Programme (UROP)

May 2024 – Aug 2024

- Developed a python algorithm that simulates CPF policies
- Bootstrapped inflation-linked historical returns of chosen investment product used for simulation
- Developed an algorithm that invests a percentage of the user's portfolio depending on their quadratic utility function
- Incorporated agent bank fees and Endowus platform fees into simulation to obtain realistic results
- Plot simulation results for results from 95th percentile to 5th percentile using matplotlib
- Increased monthly retirement payout from CPF by 25%

Eminence Organization, Sales Associate

Feb 2023 - Jun 2023

- Guided new associates with sales pitches, learning how to handle rejections and emotions
- Educated the public about the clients' services and vision
- Acted as the ambassador representing our clients
- Generated over S\$40,000 in revenue for clients

ACADEMIC PROJECTS

SmartHealth (Android App Development)

50.001 Introduction to Information Systems and Programming

Mar 2025 - Apr 2025

- Developed Android application in Java to manage personal medicine inventory and track medication intake.
- Integrated OpenAI-powered API into SmartHealth to enable AI-assisted form auto-fill via captured image data.
- Built dynamic, responsive XML layouts for seamless UI experience, including image rendering.
- Applied Java and Object-Oriented Programming concepts and principles for implementation of medicine classes

Food Security Prediction (Madagascar)

10.020 Data-Driven World

Sep 2024 - Dec 2024

- Gathered and cleaned datasets from sources such as the Food and Agriculture Organization (FAO) and the World Bank, utilizing Python libraries like Pandas and NumPy for data manipulation.
- Implemented multiple linear regression models to predict food security outcomes, applying techniques such as gradient descent for minimizing cost function and achieved a Mean Absolute Percentage Error (MAPE) of 7.11%.
- Optimized model parameters using Particle Swarm Optimization, reducing Mean Absolute Percentage Error (MAPE) to 5.27% and improving adjusted R-squared to 0.894, significantly enhancing prediction accuracy.

Hackathon

What The Hack 2024 1st Place Winner (Circular Economy and Sustainable Living)

Digital Fridge

- Developed a smart inventory management system that tracks food items and suggests recipes based on available ingredients.
- Utilized flask framework for the web application.

Asia Impact Hackathon Excellence Award

Scam Sniper

- Developed an AI-powered forum page for scam-detection

Skills

Languages: Python , Java , JavaScript, HTML, CSS,
Framework & Libraries: Figma, React, Node.js
Developer Tools: Git