

## EDUCATION

---

**Nanyang Technological University, Singapore**  
**Computer Science**

Aug 2025 - May 2029

- Bachelor of Computing in Computer Science

**Temasek Polytechnic, Singapore**  
**Computer Engineering**

Apr 2020 - May 2023

- Diploma of Engineering in Computer Engineering

## EXPERIENCE

---

**Government Technology Agency**

Apr 2022 - Jun 2023

**IT Intern**

- Designed UI/UX for digital solutions with a focus on usability and efficiency
- Consulted stakeholders across Ministry of Manpower's departments to diagnose workflow and process gaps
- Developed and implemented automation solutions to significantly improve workflow efficiency for colleagues

## PROJECTS

---

**Personal Portfolio & Automation Pipeline**

- Created a custom backend using Node.js API routes to handle contact form submissions with robust server-side validation
- Integrated the Telegram Bot API to trigger instant push notifications, allowing for immediate mobile alerts upon user inquiries
- Crafted a responsive, theme-aware UI leveraging Tailwind CSS, ensuring a consistent brand experience across all device sizes

**Data Structures & Algorithms Web Application**

- Created an interactive web application to simplify complex CS concepts, featuring real-time search and filtering for a library of 20+ algorithms
- Leveraged React hooks to manage complex UI states, ensuring seamless transitions between algorithm visualisations and code snippets
- Integrated syntax-highlighted code blocks and step-by-step visualisers to improve user retention of abstract concepts like Recursion and Sorting

**Excel-Engine Clone**

- Engineered a high-performance dependency tracking system to control real-time cell updates and recursive formula evaluations across a dynamic grid
- Implemented a custom formula parser supporting arithmetic operations (SUM, AVG) and cross-cell references leveraging TypeScript for strict type safety
- Managed complex, multi-dimensional state structures to handle cell formatting (Bold, Italics), raw data input, and keyboard shortcut listeners

## CERTIFICATIONS

---

- AI FOR INDUSTRY® - Literacy In AI
- CS50x: Introduction to Computer Science - CS50
- Java (Basic) - HackerRank
- Python (Basic) - HackerRank

## VOLUNTEER EXPERIENCE

---

**Lion Befrienders**

Sep 2022 - Nov 2022

**Volunteer**

- Facilitated interactive group activities, including traditional games and handicraft sessions, for groups of 10+ seniors.
- Demonstrated strong interpersonal skills and empathy while navigating diverse communication needs and physical abilities.

**Samaritans Of Singapore**

May 2021 - Jun 2021

**Volunteer**

- Designed a series of digital posters and social media assets to raise awareness for mental health and suicide prevention using Canva.
- Translated complex mental health topics into visually engaging and accessible educational content for a wide digital audience.