

O Jing

HP: +65 91691336 | Email: jingtechdev@gmail.com | LinkedIn: <https://www.linkedin.com/in/o-jing/>

EDUCATION

Nanyang Technological University, Singapore

Aug 2022 - Jul 2026

Bachelor of Engineering in Computer Engineering, cGPA: 4.56/5.00 (Current)

- Expected Honors (First Class)
- Achieved Distinction in: Data Structure & Algorithms, Object Oriented Design & Programming, Operating Systems, Computer Network, Software Engineering.
- Relevant Modules: Digital Logic, Computer Organization & Architecture, Introduction to Data Science & AI, Algorithm Design & Analysis.

INTERNSHIP EXPERIENCE

Micron Technology, Singapore

May 2024 – Aug 2024

SSD Firmware Validation, Intern

- Worked closely with Senior Management and Product Manager to develop a smart automation system to collect, filter, analyze, and display data generated from SSD test results.
- Automated data quality checks by writing Python scripts, reducing manual effort by 80% and ensuring high data integrity. Implemented regular performance tuning on data processing jobs, improving overall system efficiency by 20%.
- Developed and incorporated unsupervised machine learning algorithms into the system, identifying anomalies in the dataset using Scikit-learn and Keras TensorFlow, allowing for early detection of potential firmware issues and shifting problem resolution to an earlier stage in the development process.
- Created an interactive dashboard using React.js and integrated it with backend services via FastAPI, fetching real-time analytics and improving decision-making processes. Utilized Redux for state management and APEX charts for enhanced data visualization.
- Conducted comprehensive code reviews and implemented best practices for code quality and efficiency, contributing to an extensible and maintainable codebase that facilitates future modifications and scalability.

AWARDS & ACHIEVEMENTS

Inclusivity & IoT

Jan 2024 - Jan 2024

Title: Escendo Hackathon 2024

- Championed the creation of the "Tipping Hat" IoT prototype, harnessing the power of ESP32/-S3 microcontrollers to effectively tackle heat stress issues experienced by migrant workers.
- Demonstrated proficiency in IoT and cloud technology, consolidating skills in hardware development, communication protocols, and cloud integration.
- Attained recognition for contributing to impactful sustainable and inclusive solutions, awarded with prestigious Micron Sponsor's Choice award at the Escendo hackathon 2024.

Sustainability & IoT

Aug 2023 - Aug 2023

Title: IEEE NUS x NTU Aquaponics Hackathon 2023

- Led a collaborative team of five members in the successful development of the "CloudSensor" monitoring system.
- Spearheaded the integration of key sensors, ESP32 microcontroller, AWS IoT and AWS S3.
- Implemented Grafana for secure and efficient data communication and visualization, contributing to the robustness of the monitoring system.
- Received the first prize at the IEEE NUS x NTU Aquaponics Hackathon 2023, acknowledging the project excellence and innovation.

ACADEMIC PROJECTS

Software Engineering Project

Feb 2024 - May 2024

Title: BTOgether

- Created BTOgether, an application for young couples to manage, view, and evaluate BTO (Build-To-Order) flats in Singapore using React.js and Firebase, providing secure user authentication and real-time data synchronization.
- Followed the software development lifecycle (SDLC) to ensure thorough planning, design, development, testing, and deployment of the application.
- Applied software engineering best principles, generating a comprehensive software requirement specification for clear documentation and code readability.

NUS x NCS Hackathon

Feb 2024 - Mar 2024

Title: Encore

- Collaborated with a team to create Encore, designed to minimize foot traffic in concerts held in Singapore.
- Developed the Backend System, which integrated Gemini LLM for optimizing transportation logistics and APIs such as LTA DataMall to collect real-time data on public transportation.
- Connected the Backend System to the Frontend System using Flask and containerized the entire application with Docker, ensuring seamless communication and scalable deployment.

Object Oriented Programming Project

Aug 2023 - Nov 2023

Title: Camp Application and Management System (CAMs)

- Created CAMs, an application for staff and students to manage, view and register for camps within NTU in Java, using Git version control to collaborate seamlessly with my team.
- Applied OOP and SOLID principles, along with MVCS design patterns. Generated comprehensive UML class diagram illustrating class relationships and produced detailed Javadoc for clear documentation and code readability.
- Demonstrated problem-solving skills by meeting all functional requirements for CAMs. Ensured robustness through rigorous testing and adherence to software development best practices.

Data Science & Analytics Project

Feb 2023 - Apr 2023

Title: Heart Disease Prediction

- Conducted comprehensive data preprocessing, cleaning, and feature extraction on medical symptoms data to determine factors influencing the likelihood of heart disease. Leveraged expertise in Python for efficient analysis.
- Implemented machine learning models, including support vector machine and logistic regression on the extracted features. Employed NumPy, Pandas and Matplotlib for data manipulation, analysis and visualisation.
- Achieved commendable accuracy of 89.00% in determining the patient's likelihood of heart disease and demonstrated proficiency in these essential data science tools.

SKILLS

Languages: English, Chinese

Programming: Python, Java, C, C++, JavaScript, HTML, CSS,

Frontend: React.js, Next.js, Django, Tailwind

Backend: Nodejs, Express.js, Firebase, Flask, FastAPI, Docker.

Database: MySQL, SQLite, MongoDB

Other Skills: Git, GitHub, Bitbucket, Jira, Confluence, Microsoft Excel, Microsoft Teams.

INTERESTS

Relevant Online Courses:

- AWS Cloud Quest: Cloud Practitioner.
- Google: Data Analytics Professional Certificate.
- Google: AI Essentials.
- Duke University: Programming Foundations with JavaScript, HTML and CSS.
- University of Michigan: Introduction to HTML5.
- Duke University: Introduction to Machine Learning.
- University of Michigan: Introduction to Data Science in Python.