

Lee Kai Yi Zachary

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Portfolio: <https://zachyboiii.github.io/zac-portfolio/> | LinkedIn: <http://www.linkedin.com/in/zachary-lee-kl>

*I am an independent and passionate learner interested in software development and artificial intelligence.
(Available from Jan 2026 to Aug 2026)*

WORK EXPERIENCES

Singapore University of Technology and Design (SUTD) Teaching Assistant

May 25 – Aug 25

- Assisted students with course material and project work through in-class support and consultations, fostering deeper understanding and engagement.
- Graded assignments and project components
- Collaborated with faculty to improve student learning outcomes.

New Creation Church Program Assistant

Mar 23 – Jul 23

- Online program and webinar director
- Event planning using Microsoft PowerPoint & Excel
- Logistics management

EDUCATION

Singapore University of Technology and Design (SUTD)

Sep 23 – Present

- Bachelor of Engineering (Computer Science and Design)
- GPA 4.8/5.0, SUTD Global Distinguished Scholarship Holder
- Expected date of graduation: August 2027

Yonsei University

June 24 – Aug 24

- Yonsei International Summer School
- Achieved letter grade 'A' in Introduction to Psychology and Basic Korean Language I

PROJECTS

Singapore University of Technology and Design | 50.001 Information Systems & Programming

Jan 25 – Apr 25

- Developed *Vroom*, an Android app connecting learner drivers with instructors, featuring booking, scheduling, chat, and quizzes
- Implemented Dijkstra's algorithm to match learners with nearby instructors and optimized app logic using Java and OOP principles

Singapore University of Technology and Design | 50.002 Computation Structures

Jan 25 – Apr 25

- Designed and implemented a real-time arcade game inspired by Squid Game's Glass Bridge on FPGA using Lucid HDL and finite state machines
- Built a custom datapath with register file and ALU, applying Beta CPU architecture principles
- Integrated random path logic, timer display, and bicolored LEDs for interactive gameplay feedback

KebunFresh | SUTD x PCU Hackathon

Nov 24 – Dec 24

- Designed a website to address the problem statement – *"How might we simplify the process for locals in Surabaya to locate and purchase fresh crops by connecting them with the best farms for them through a convenient and user-friendly app?"*
- Created a machine learning model to provide users with recommendations based on user activity
- Made using streamlit, machine learning implemented using pyspark and pandas
- Collaborated with local Surabaya students to better understand and cater to local needs

Portfolio Website | Personal Project

Dec 24 – Dec 24

- Created a website to showcase my projects, my flair for design and to allow potential employers to get to know me better
- Made using React.js and styled using CSS

Singapore University of Technology and Design | 10.020 Data Driven World

Nov 24 – Dec 24

- Applied machine learning concepts like linear regression using python (pandas, numpy) to train a model that solves the problem statement – How might we utilize projected climate conditions for different countries over the next 10 years to predict optimal crop choices, ensuring alignment with future climates and promoting food supply stability?
- Created a flask webapp that allows users to interact with the trained ML model and thereby make a prediction.

Singapore University of Technology and Design | 10.014 Computational Thinking for Design

Nov 23 – Dec 23

Mini Arcade (Python)

- Designed a terminal based mini arcade that contained 4 mini games
- Made use of Object Oriented Programming to create the games through turtle module in Python

CO-CURRICULAR ACTIVITIES

Volleyball Club

Sep 23 – Jan 25

Secretary

- Represented Singapore University of Technology and Design in the Singapore University Games both in 2023 and 2024
- Collaborated with other clubs such as SUTD Tchoukball Club to organize inter-club camps to expose members from both clubs to new experiences
- Responsibilities included managing club attendance, logistics and administrative matters
- Organized and managed club booth at school events such as Open House, Night Fiesta and Fifth row showcase

SUTD Freshman Orientation

May 24 – Sep 24

Orientation Group Leader Head

- Responsibilities included event planning and people management
- Leadership, teamwork and public speaking
- Mentored and integrated incoming SUTD Freshmen students

ADDITIONAL SKILLS

- Hard Skills: Python, Java, Streamlit, Figma, HTML, CSS, JavaScript, React.js, Rhino, Lucid, Git
- Soft Skills: Teamwork, Leadership, Design Thinking, Event planning, Critical thinking, Time management