

Shermern Ang

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EDUCATION

Carnegie Mellon University - *B.S. Computer Science*

May 2025

- GPA 3.8, Dean's List
- Principles of Imperative Computation, Principles of Functional Programming, Vector Calculus for Computer Scientists, Introduction to Electrical and Computer Engineering

PROJECTS

C0 Virtual Machine - C

May 2023

- Developed the core components of the virtual machine for C0, a subset of C, including the instruction set, stack-based architecture, and memory management.
- Implemented a lexer and parser to handle the C0 language syntax and generate bytecode for execution on the virtual machine

Sudoku - Python, OCR, Selenium

Dec 2022

- Designed and developed a Python-based Sudoku game from scratch
- Coded a Sudoku solving algorithm, optimizing it for efficiency and accuracy to ensure the generation of solvable and challenging puzzles

ScheduleEase - Python, Selenium

Sep 2021

- Developed a Python-based application to automate the booking of driving lessons in Singapore, expediting learning period for multiple users from a usual three months to just one month

RESEARCH

NASA - Pose Estimation of Spacecraft through Machine Learning

Present

- Created and curated a comprehensive dataset of spacecraft images using the Basilisk simulator for training and evaluation purposes
- Collaborated with researchers in the Robotics Exploration Lab, CMU, in refining pose estimation algorithm

WORK EXPERIENCE

Lieutenant, Military Police Command - Singapore Armed Forces

Dec 2020 - Feb 2021

- Managed a 40 men for operations and training daily as Commander of Traffic and Presidential Guards Platoon
- Oversaw training and coordination for a Unit of more than 500 men as Training Coordination Officer
- Commissioned in top 10% of cohort as a 2nd Lieutenant and awarded Platoon Best for Fitness

EXTRACURRICULARS

CS for Ukraine - Instructor

Present

- Designed and delivered interactive Python programming lessons to Ukrainian teenagers, fostering their interest and proficiency in coding.

Singapore Students Association - Treasurer

Present

- Oversaw financial operations, negotiated and secured sponsorships, grants, and partnerships to supplement the association's financial resources and enhance its initiatives

OTHERS

Technical

- Python, C, SML, React, HTML, CSS, JavaScript, Bootstrap, LaTeX, GitHub, Linux, Vim, Basilisk

Languages

- Native proficiency in English and Mandarin Chinese
- Beginner proficiency in Japanese