

THOMAS TAY

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EDUCATION

UNIVERSITY OF MICHIGAN

B.S. Computer Science, Honors Mathematics

Ann Arbor, MI
September 2017 – Present

- **Junior** majoring in Computer Science and Honors Mathematics
- **Graduation Date (Expected):** May 2020
- **GPA:** 4.00
- **Course Highlights:** Data Structures & Algorithms, Honors Linear Algebra, Statistics, Combinatorics and Graph Theory

WORK EXPERIENCE

UNIVERSITY OF MICHIGAN, COMPUTER AIDED ENGINEERING

Web Team Student Developer

Ann Arbor, MI
May 2018 – Present

- Maintained the front end of ParkIT web app using Python (Flask) and JavaScript.
- Wrote Python scripts for automated data processing, which helped optimize University resource allocation.
- Worked closely with senior developers and learned project management skills.

RAFFLES INSTITUTION HIGH SCHOOL

Teacher

Singapore
Feb 2017 – Jun 2017

- Assessed and looked after 70+ high school juniors' progress over four months, providing informative presentations, ensuring that all students attained full comprehension.
- Planned a lesson structure and timetable for 4 classes, ensuring that lessons adhered to curriculum objectives.

SINGAPORE ARMED FORCES

Administrative Supervisor

Singapore
Feb 2015 – Feb 2017

- Led a unit of 50+ soldiers in Kranji Camp 3, ensuring prompt attendance and discipline amongst the unit.
- Maintained discipline amongst my unit, organizing 20+ Summary Trials and Court Martials.
- Centralized training and development for new additions to our unit, inducting and introducing them to the camp.
- Organized logistics of Division-wide events, handling the arrival of Guests of Honor and making camp banners.

COMPUTER SCIENCE EXPERIENCE

NAS AND VPN SERVER

(2017)

- Built a Linux server using Ubuntu Server 16.01, writing CRON jobs to perform automated backups.
- Designed a VPN using OpenVPN and UFW, allowing worldwide access with requisite SSH authentication.

OPTIMIZE-A-MEAL

(2017)

- Programmed a Python data optimization package that makes use of the GLPK library to optimize meals.
- Used mixed integer Linear Programming techniques like Branch-and-Bound to locate an optimal solution.
- Scraped websites using cURL to find data and Python to perform data processing.

LASER ENGRAVER DIY HARDWARE PROJECT

(2017)

- Built a DIY Laser Engraver made from scrap DVD Drives capable of engraving wood.
- Engineered a custom variant of the GRBL control software to run our hardware on the Arduino Platform
- Exhibited the project at the Singapore Maker Faire, a National competition recognizing hardware innovators.

LEADERSHIP EXPERIENCE

INTERNATIONAL ENTERPRISE BUSINESS COMPETITION

Team Leader

Singapore
Apr 2014 – Jun 2014

- Formulated an internationalization plan for Eu Yan Sang, a Multi-National Corporation.
- Pitched the business plan to its CEO, articulating the financial benefits of adopting our proposal.

Skills

C++, Python, Flask, JavaScript, Linux, Shell scripting, Arduino, Linear Programming, SQL

For Fun

Ballroom Dancing, Piano (Grade 8), DIY, Electronics

Languages

English, Mandarin, French