

Jason Tan

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EDUCATION

McMaster University Hamilton, Canada

Sept. 2020 - Apr. 2025

Bachelor of Engineering - Software Engineering: GPA: 3.9

Entrance scholarship for achieving average above 90%

Relevant Courses: Object oriented programming, Data structures and algorithms, Software Development, Discrete Mathematics and Applications

SOFTWARE PROJECTS

Virtual Robotic Arm Project

Python | Dec. 2020

- Designed a virtual environment using **Quanser** and programmed a robotic arm using Python to perform surgical tool operations
- Imported **QArm** libraries and utilized internal methods to allow the QArm to be moved, grab objects and open drawers.
- Implemented **muscle sensor emulators** for the user to be able to control the QArm
- Achieved **100%** accuracy when performing operations by implemented muscle sensor emulators

Assessment Assistant

Java | Jan. 2019

- Designed a program in Java to assist teachers with automating testing process resulting in **30%** time savings
- Implemented **object oriented programming** principles to assist teachers with creating, updating and storing test questions using a **Java GUI**
- Utilized the **ITextAPI** to export tests as PDF
- Incorporated **search algorithms** to improve editing and removing functionality by **20%**
- Used software design methods such as **object oriented design** and **design process**

Folder Hierarchy System

Java | Nov. 2019

- Built a program that models a Windows-like file system for storing and retrieving objects
- Designed and implemented a **custom data structure** consisting of queues, linked lists, array lists and binary trees
- Developed **search algorithms** for users to access encapsulated objects resulting in **25%** decrease in retrieval time, compared to linear search

PROFESSIONAL EXPERIENCE

Maxim Catering, Toronto

Crew Member

Summer 2017, 2018, 2019

- Prepared orders and operated cash register for 500+ customers daily in the Toronto Financial district
- Assembled and delivered catering dishes to clients
- Implemented **ReCaptcha software** and assisted in design of website to remove spam emails which improved overall productivity and sales by **10%**

York South Silver Knights, Markham

Basketball Coach

Feb. 2019 - Jun. 2019

- Coached groups of ~15 girls aged 5-11 teaching them **fundamental skills** (dribbling, layups, shooting form, basic strategy), providing them with consistent feedback, and demonstrating **effective team communication**
- Designed and taught strategic basketball plays and drills to exceptional players to lead the team to a semi-finals appearance

SKILLS SUMMARY

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|-------------|--|
| • Languages | Python, Java, HTML, CSS, C, JavaScript, Bash, Verilog |
| • Tools | IntelliJ IDEA, Eclipse, Overleaf, VS Code, Docker, Git, Github |
| • Platforms | Linux, Windows, Raspberry, AWS |