JESSICA TANG

(604) 719-2576
jessicatang2019@gmail.com
https://jessicaxtang.github.io/

Languages: Python, C++, C, MATLAB, HTML, CSS, JavaScript

EDUCATION

University of Toronto — Sept 2022 - Present
Bachelor of Applied Science in Engineering Science (Software Engineering)
Computer Programming, Data Structures & Algorithms, Linear Algebra, Calculus I & II

Simon Fraser University — Sept 2021 - Apr 2022
Grade 12 Concurrent Enrollment
Introduction to Computer Programming I & II

EXPERIENCE

UofT Cognitive Neuroscience Lab | *Machine Learning Researcher* — May 2023 - Present
- Designing and training neural networks to optimize robotic arm classification and grasp predictions, modelling biological control systems

Syllabyte | *Full Stack Developer* — May 2023 - Present
- Building a web-based productivity platform startup using React, Django, and Python

aUToronto | *Mapping Team Developer* — Sept 2022 - May 2023
- Building a self-driving car, maintaining, updating, and testing large Python codebase to automate HD maps for various outdoor environments with JOSM

PROJECTS & AWARDS

Articulator: Speech to ASL Translator (2023)
- Translating speech to sign language to bridge barriers for the hearing-impaired. Developed with Cohere, utilized 6 AI models to recognize, detoxify, analyze sentiment, and launch result.
- Best Project Overall **and** winner of Cohere challenge **out of 90 participants** (NSBE Hacks)

Cervical Spinal Fracture Detector (2023)
- Detecting cervical spinal fracture from CT scans and predicting fracture location through segmentation masks, to reduce hospital wait time for patients.
- First Place Winner (Toronto Health Datathon)

RotaSat: Can-sized Satellite (2022)
- Designed and built a can-sized satellite with a radio data transmitter and active attitude control system.
- International Top Final Report **out of 25 countries** (European Space Agency CanSat Competition)
- National Top Project (Canadian CanSat Design Challenge)

Deep Reinforcement Learning Controller for Indoor Farming (2021)
- Implemented and trained a Deep Q-Learning Neural Network for the autonomous controller, employing the experience replay memory technique.
- Conference-published paper and Best Presenter (International Student Conference On Artificial Intelligence)
- National Finalist (Ingenious+ Innovation Competition 2022)
- Provincial Top 5 Finalist (BC Youth Innovation Showcase 2021)
- Provincial Top Project: Greenhouse Growers' Award (BC/Yukon Science Fair 2021)

Facial Emotion Recognition Model using Classification and Convolutional Neural Networks (2020)
- Classified images dataset using various classification algorithms, a convolutional neural network, and implemented the trained model in real time applications.

LEADERSHIP

IlluminAIte Academy | *Founder and President* — Aug 2020 - Present
Lead team of 15, worked to increase accessibility to free AI education, organized 10 events/workshops, garnered 275+ participants from 42 cities and 11countries, two-time grant award recipient. Pioneered organizing first high school AI Ethics Competition in North America. Now, working to expand into universities, including UofT, McMaster, SFU, and York University.