Matthew Choi

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https://matthew9655.github.io

EXPERIENCE

Graduate Research Assistant Sep 2022 - Present
Vector Institute, University of Toronto
Research Goal:

- Introduce classical machine learning methods to assist Quantum Computing algorithms.
- Improve modern Computer Vision models for transparent objects.

Software Developer Intern May 2020 - May 2021
Modiface, Toronto

- Implemented front-end Google Ads in HTML/CSS with partner brands for try-on makeup experiences on web and mobile apps.
- Contributed to major version updates with team members in VueJS for a try-on makeup web and mobile apps that were eventually deployed.
- Built DevOps scripts in Javascript for team members to simplify routine work.

Teaching Assistant Sep 2022 - Present
University of Toronto
CSC309: Web Programming

- Tutorial TA for ReactJS, graded assignments, and developed homework for the class.

Undergraduate Researcher May 2020 - Apr 2022
University of Toronto

- Learning quantum dynamics with Neural ODEs, published at Physical Reviews A and presented at American Physical Society March Meeting 2021
  Advisor: Alán Aspuru-Guzik
- Implicitly Guiding CS1 students with Analogous Problems
  Advisor: Michelle Craig, Jennifer Campbell
- Work was done in Python and R.

EDUCATION

University of Toronto, Toronto, Canada Sep 2022 - Present
Master's of Science in Computer Science
Supervisor: Alán Aspuru-Guzik

University of Toronto, Toronto, Canada Sep 2017 - Apr 2022
Bachelor's of Science in Computer Science

PROJECTS

Capstone Project: Autonomous Vehicles 2022

- Created an algorithm to improve vehicle tracklet mismatches with graph techniques and cost heuristics using Python and Pytorch.

Disentangling Sentences 2021

- Investigated whether one could disentangle sentences with Beta Variational Autoencoders using Python and Pytorch.

GameCentre 2019

- An android app consisting of 3 popular puzzle games built with Gradle.

SKILLS

Languages: Python, Javascript, HTML, CSS, C, Bash
Tools and Frameworks: Git, Linux, Pytorch, Tensorflow, Node, VueJS, CUDA