

# Meg(Meining) Tao

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## Educations:

**2019-present** B. Applied Science, University of Toronto.

4<sup>th</sup> Year. Department of Computer Engineering; Minor in AI & Machine Learning; Certificate in Business

**Related Courses:** Machine Learning, Computer Networks, Operating Systems, Introduction to Databases, Programming Fundamentals, Algorithms & Data Structures

## Skills:

**Programming:** Python, C, C++, MATLAB, PostgreSQL

**Version control system:** Git, GitHub

## Experiences:

**Sep 2022 – Aug 2023** Assistant Solutions Architect: Solutions Design at IESO (Toronto, ON)

- Discovered and test the OnSolve notification system for a Ministry of Energy initiative
- Investigated and test new Enterprise Architecture application features and new document automation solution
- Researched and compared through the Enterprise Architecture tool procurement process
- Automated the Architecture review approval process
- Migrated and standardized Enterprise Architecture database and contents

**May 2021 – Aug 2021** Computer Engineer: Software Technology Department at Neusoft Medical Systems Co., Ltd.

- Developed the user interface of a medical image processing software using C#
- Worked on documents that record the different stages of a software's development
- Used Polarion tools to organize progress-tracking documents; Enterprise Architect to create and draw the flow and components of the project

**May 2020 – Aug 2020** Research Student: The Production of Billet Project – **Python, PyTorch**: Northeastern University

- Used Machine Learning to distinguish and classify the defects of produced billet
- Used CNN as the network with over 60,000 training data and 10,000 testing data
- Cooperated with other researchers to improve the billet production

## Engineering Projects:

**Sep 2021– Apr 2021** Human Emotion Classification-**Python, PyTorch**: Applied Fundamentals of Machine Learning, UofT

- Classified a person's facial expression into six classes and placed the corresponding emoji onto the person's face
- Used FER-2013 dataset, and applied data augmentation to balance the dataset
- Architecture: 7-layer CNN; transfer learning: AlexNet, ResNet18; Achieve highest test accuracy of 66% with ResNet18
- Combined with live camera to allow new inputs by using OpenCV
- Used GitHub, Git and Google CoLab as project management tools

**Jan 2021– Apr 2021** Geographic Information System Software Program–**C++**: Software Design and Communication, UofT

- Find good travel routes in a city and give directions to a user basing on provided geographic information database
- Use EZGL to visualize and draw the map. Users could zoom in/out, label a point of interest and so on.
- Enable users to search streets and points of interest, load a different city's map, and review search history
- Provide simple traveling salesman problem algorithm