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# **EDUCATION**

## **UNIVERSITY OF TORONTO**

MASTER OF SCIENCE IN APPLIED COMPUTING

Sep 2022 - May 2024 | Toronto, ON

#### UNIVERSITY OF TORONTO

HONOURS BACHELOR OF SCIENCE, COMPUTER SCIENCE SPECIALIST DATA SCIENCE SPECIALIST Sep 2017 - May 2022 | Toronto, ON Cum. GPA: 3.90/4.00

## COURSEWORK

Computer Networks (ongoing) Storage Systems (ongoing) Introduction to Image Understanding Uncertainty & Learning Data Science I & II Stochastic Processes Reinforcement Learning **Business Software** Neural Networks and Deep Learning. Data Analysis I & II Design and Analysis of Experiments Principles of Programming Languages Operating Systems Computer Organization Algorithm Design and Analysis Advanced Calculus Linear Algebra I & II Probability & Statistics I & II Software Design Programming on the Web Databases Introduction to Psychology

# LINKS

WebSite:// hantang\_li Github:// Hantang-Li LinkedIn:// hantang-li

# **SKILLS**

#### **PROGRAMMING**

Python • R • Java • C JavaScript • HTML • CSS • Git Bash • Docker • SQL • ŁTEX **LIBRARIES** 

NumPy • Pandas • PyTorch Matplotlib • Plotly • seaborn • ggplot2 OpenCV • FFmpeg • Robosuite

## HONOURS

2018 - 2022 Dean's List Scholar for all school years

# RESEARCH AND WORK EXPERIENCE

## SUNNYBROOK HEALTH SCIENCES CENTRE | RESEARCH ASSISTANT

May 2021 - July 2022 | Toronto, ON | BrainLab | Supervisor: Maged Goubran

- Processed clinical data to fit into the UNETR model training pipeline.
- Use Generative Adversarial Networks and Convolutional Networks to translate Multiphase CT angiography image to CT perfusion image.
- Conducted literature review, preprocessed the data, and analyzed patient information.

#### HUAWEI NOAH'S ARK LAB | RESEARCH ENGINEER

May 2020 - May 2021 | Markham, ON | Work as PEY co-op student

- Focused on solving computer-vision-related problems using machine learning methods and models.
- Trained image and audio classification models for a classification system to classify different categories of contents.
- Developed multiple data preprocessing pipelines to process raw data for model training and testing.
- Modified data analysis and visualization pipeline for model's test results.

## **PROJECTS**

# EXPLORATION OF MUSIC OBJECT DETECTION USING DETECTION TRANSFORMER | JAN 2021 - MAY 2021

- Used the Transformer-based model Detection Transformer (DETR) on music object detection and compared it with Faster R-CNN.
- Analyzed the structure of the model, the encoder and decoder weight heat map of DETR.
- Inferred the different performances of DETR on cropped and uncropped sheet music images, tuned the DETR model, and gave suggestions on improving the potential methods of DETR in music object detection.

#### SIDEWALK LABS DATA VISUALIZATION | JAN 2020 - MAY 2020

- Provided data analysis and visualization tools to help customers who used numina sensors make decisions.
- Developed a page to display the path heat map of travellers and objects and the dwell time distribution of selected areas.
- Worked as the team leader, established team workflow, and integrated the work results into an overall website.

## JERRYUP CAMPAIN MASTER | PRODUCT DESIGN, MARKET ANALYSIS Sep 2021 - Present | Markham, ON | DCSIL

- Communicated between our developing team with RBC customers and course instructors on improving our product.
- Conducted in-depth research on our market, competitors, customers, and built financial modelling.