

TIFFANY MAYNARD

tiffany . maynard at gmail.com

EDUCATION

Honours Bachelor of Science - Computer Science (French Immersion Stream) May 2021
University of Ottawa Ottawa ON

- Honours Project: Puzzle Boon - Jigsaw Puzzle Assist

Honours Bachelor of Mathematics - Actuarial Science (Co-op) May 2001
University of Waterloo Waterloo ON

AWARDS

- Cognos Prize for top fourth year Honours Project in Computer Science
- Summa Cum Laude (University of Ottawa)
- Merit Scholarship (Dean's Honours List) Fall 2018 – Winter 2021
- Second Language Certificate in French

RESEARCH EXPERIENCE

Honours Project University of Ottawa Winter 2021

- Evaluated computer vision techniques to best isolate puzzle pieces from their backgrounds
- Compiled and labelled images of puzzle pieces for ML model dataset using COCO format
- Implemented a model to detect puzzle pieces using transfer learning (Detectron2 Mask RCNN model in PyTorch)
- Met bi-weekly with supervisor to discuss progress
- Presented results via oral presentation to peers and written project report

Various Research Projects University of Ottawa Fall 2019 - Winter 2020

Introduction to Artificial Intelligence (CSI4106)

- Evaluated different approaches to classifying text posts to their corresponding subreddit
- Implemented a classifier using Universal Language Model Fine-tuning (ULMFiT) with fastai
- Co-wrote report analyzing and comparing results from the 3 different approaches
- Presented results of analysis to peers

Fundamentals of Data Science (CSI4142)

- Analyzed crime statistics for two jurisdictions using multiple data sources
- Designed data structure (fact table and dimensions)
- Formatted and cleaned data sources using pandas in Jupyter Notebooks
- Loaded clean data into PostgreSQL database and analyzed using queries
- Presented results to teaching assistant

RESEARCH EXPERIENCE (continued)

Design of Secure Computer Systems (CSI4539)

- Analyzed and compiled information about the Twitter Hack on July 15, 2020
- Presented analysis via online discussion with professor and in a written report

Topics in Artificial Intelligence - Semantic Web (CSI5180)

- Researched Open Graph Protocol (Including Metadata in the Current Web)
- Presented topic overview to peers

RELEVANT WORK EXPERIENCE

Junior Officer (FSWEP Student) Canada Border Services Agency May 2019 – February 2020
Ottawa ON

- Reviewed existing literature on x-ray object detection and summarized to laypeople
- Implemented a fastai deep learning model for an x-ray object detection proof of concept
- Worked with my team on validating data for a blockchain proof of concept

FSWEP Student Courts Administration Service June 2018 – February 2019
Ottawa ON

- Created a web tool using JavaScript and jQuery to allow self-appointed litigants to provide the information required to generate Federal Court forms in pdf format

Custom Access Database Developer Sole Proprietor July 2003 – December 2016
Toronto ON and Hamilton ON

- Produced custom MS Access applications to:
 - support third party administration services for a not-for-profit group insurance trust
 - provide donations management functionality for a not-for-profit organization
 - track study participants in a longitudinal childhood autism study

SKILLS

Computer: Proficient in Python, Microsoft Office (including Excel, Access, VBA)
Familiar with JavaScript, HTML/CSS, Go, LaTeX, Jupyter Notebooks, R, NumPy, pandas,
OpenCV, OpenOffice, Linux, Racket (Lisp), PostgreSQL, Prolog, Java, C/C++

Language: Native proficiency in English · Intermediate proficiency in French

REFERENCES

Caroline Barrière
Assistant Professor, École de science informatique et de génie électrique
Relationship: Professor
University of Ottawa
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Miguel Garzon
Faculty Member, Faculty of Engineering
Relationship: Professor
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Full Professor, École de science informatique et de génie électrique
Relationship: Honours Project Supervisor
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