**Yun (Tilly) Chen**

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| **Education** |

***McGill University***, Master of Engineering, Computer Engineering, GPA(Courses) 3.5/4.0 Sept. 2017 — Dec. 2019

***Wuhan University***, Bachelor of Engineering, Communication Engineering**,** GPA(Overall) 3.6/4.0Sept.2013 — May. 2017

**Core Courses**: Programming Fundamentals, Data Structure and Algorithm, Object-Oriented Programming, Information Theory and Coding, Machine Learning, Software Engineering, Database Technology, Computer Vision, Optimization

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| **Awards and Interests** |

**Awards:** Outstanding Student (top 15%) in Wuhan University, MITACS Research Award in McGill University, Technical Entrepreneurship Award (2nd Class) in McGill Dobson Center

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| **Skills** |

Languages: C, C++, Java, Python, R, SQL, MATLAB, JavaScript, HTML, CSS

Tools:Git, Visual Studio, Anaconda, Eclipse, IntelliJ, PyCharm, Atom, Wechat Developer Tool, Vim

Frameworks*:* Docker, ROS, Tensorflow, PyTorch, Keras, Pandas, scikit-learn, OpenCV, OpenGL

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| **Work Experience** |

**App Developer, CTO and Technical Co-founder, PDT Food Depot, Montréal, Canada**  Jun. 2019 — Aug. 2019

*Technical entrepreneurship program of McGill Dobson Center, 2nd Place Winner in competition*

• Developed a Mini-Program (an app that can be used without being downloaded, **released on Wechat**) that is an online decentralized food bank platform for users’ food donation and distribution by **WXML, WXSS** in **Wechat Developer Tool**.

• Constructed a **JSON database** to store and update user information via cloud functions in **Cloud Base,** addedan online map to show the food bank bases in each city and information of beneficiaries. On the user’s page, users can donate food by uploading images, writing food information. On the food page, available foods and food information are shown.

• Beta tested the Mini-Program and gained around 150 users, generated more than 300 actions of food donations and receiving.

**Machine Learning Research Intern, Transoft Solutions, Waterloo, Canada** Jan. 2019 — May. 2019

• Designed a Filter Selection Algorithm in YOLOv3 (Convolutional Neural Networks), made Car and Pedestrian data sets, implemented and tested the algorithm on the data sets by **Python3** and **C** using **Keras** and **Tensorflow.**

• Selected 9 filters out of 75 filters in YOLOv3. The filters selected are more sensitive, and the features got from these filters can be used to distinguish objects. Reduced the redundancy of original features in YOLOv3 by 88%.

• Tested the algorithm on the traffic movement video data, distinguished the various objects in the same class, enhanced the YOLOv3’s object tracking accuracy by 3%.

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| **Projects** |

**Self-driving Cars and AIDO Driving Olympics Challenge (Python, PyTorch, Docker, ROS)** Sept. 2018 — Dec. 2018

• Assembled self-driving car models from scratch and made it move with Docker. Improved self-driving performance by classical ROS and deep reinforcement learning of the DDPG algorithm by Python and PyTorch.

• Trained YOLOv3 from scratch by NVIDIA Titan GPU, implemented object classification and detection to an accuracy of 90%.

**Dialogue Language Classification (Python, MATLAB, scikit-learn)** Oct. 2017 — Nov.2017

• Collected short conversation corpses of various languages and made conversation corpse data sets by MATLAB. Analyzed short conversations and automatically classified them according to the language.

• Fully implemented Naïve Bayes and Decision Trees by Python and scikit-learn. Participated in the Kaggle competition and got a testing accuracy of 70%.

#### **BP Neural Networks Application in Speech Recognition(MATLAB)** May. 2015 — Sept. 2015

• Collected hundreds of speech samples and preprocessed them including pre-emphasizing, segmentation, windowing and end-point detection  
• Extracted the feature parameters of MFCC and designed the dynamic time warping algorithm  
• Constructed BP neural network and trained the speech samples, recognized speech samples from other people with an average accuracy of 80%  
• Designed GUI interface to perform the whole process and results