

## Education

Concordia University  
Master of Science: Computer Science  
Montreal, Canada

Expected in September 2021

- 3.8/4.3 GPA

Hunan University  
Bachelor of Engineering: Computer Science  
Changsha, China

July 2018

## Experience

Concordia University  
Research Assistant  
Montreal, Canada

September 2019 to Current

*Characterizing TensorFlow Deprecated Python API: An Empirical Study (Paper in Progress)*

- Did an Empirical study about TensorFlow deprecated APIs. Analyzed 15 TensorFlow releases from TensorFlow 1.5 to the latest version to investigate API deprecation situation and API deprecation reason.
- Selected 18 popular deep learning models to find the deprecated APIs usage and manually migrate deprecated APIs inside to compare the trained model accuracy difference.
- Our finding could give insight into how deprecated APIs evolved in TensorFlow and help developers understanding why APIs become deprecated and the impact on their model if they did not migrate their code timely.

*An Empirical Study of the Impact of Architecture Refactoring on Software Performance*

- Investigated 46 architecture refactoring related commits from 3 popular Java framework HBase, Cassandra, Hadoop, and classified them into 4 self-defined architecture refactoring categories.
- Run JUnit tests before and after commits to evaluate the performance (CPU Time, Memory Usage, and Response Time) difference.

Xinhua News Future Media Convergence Research Institution  
Algorithm Engineer  
Beijing, China

July 2018 to March 2019

*The Affective Benchmarking of Movies Based on the Physiological Data of Audiences*

- Implemented a paper algorithm independently which consist of some signal analysis method like low-pass filter, moving average, etc, to monitors the affective benchmarking of movies based on the physiological responses of a real audience collected from Electro Dermal Activity (EDA) sensor.
- This algorithm could be used to predict movies' box office, help director understanding audiences' emotion and improve the plot later.

*Detecting Attention During Real-Word Driving Tasks Using Physiological Sensors*

- Using an unsupervised learning algorithm to divide the intensity of drivers' attention on broadcast based on the Electro Dermal Activity (EDA) data.

## Coursework

- Implemented a coverage-guided fuzzer with jupyter notebook to test program bugs.
- Design of test case to detect four Java bug patterns defined in *FindBugs*.
- Implemented one Java project to detect three exception handling anti-patterns.
- Design of sparse matrix-vector multiplication algorithm with MapReduce technology using FLINK.

## Skills

- C++, Java, Python, R, HTML, MATLAB, MySQL
- Chinese(native), English