Moshi Wei

Email: wmswms938@gmail.com

Blog: moshiii.github.io/cv/
Python, NLP, Machine learning

Experience

Software Engineer – Business Intelligence, Achievers   May. 2019 – Present

- **Team lead** of awarded project: Created comments **keywords insights** system highlighting **Date**, **Name** and **Event** using **Named Entity Recognition, Spacy, NLTK** and relevant **NLP** technique

- Maintains the data warehouse **ETL** daily reporting workflow that processes **0.15 TB current and historical data** daily with **advanced Postgresql** (100+ lines of code, 20+ columns, 5+ joins and coalesce per query script) and **Centerprice** data integrator

- Developed data warehouse ETL pipeline with **Python**, **Spark** and **Airflow**

- Created user connectivity **Network Graph** for member in social network for **user influence Perdition** and analysis using **Python**, **Networkx** and **Pyvis**

Research Assistant, University of Waterloo   Dec. 2017 – Sep. 2019

- First author and **Team lead**: Created **NLP-based** Automated Bug **Prediction** and Repair Model with **240%** accuracy improvement Compare to the **state-of-the-art** tool on Quixbugs benchmark using **Pytorch**, **Python, Deep Learning** and **NLP**

- **Deployed** my research model to **Linux production** server with **4 GPU** and **128 CPU** and **24/7 high availability** and **Task scheduling** that runs critical tasks with an average of **72 hours** execution time.

- Created road slippage **Prediction model** with **81%** accuracy using **VGG16** model**, Computer Vision** Algorithm and **OpenCV**

Awards

- **Best Hackathon Project** Award at **Achievers**: ML-based Recommender system   Jan 2020

- **Full Scholarships** for Uwaterloo MASc. Software Engineering program   Jan 2019

- **Top 4%** out of **100** participants for **MNIST** digits recognition challenge with **98.8%** model accuracy using fine-tuned **K-means** model   May 2018

- **Winner of** the Twitter **NLP sentiment analysis** contest at UOttawa for **highest model accuracy** out of **70** participants   Sep 2016

Education

- **University of Waterloo**, Research Master of Software Engineering **Dec 2017 – Sep 2019**

- **University of Ottawa**, Bachelor of Computer Science, Horner with Co-op **Sep 2012 – Dec 2016**

Publications

- Abstraction Mechanism on Neural Machine Translation Models for Automated Program Repair
Author: Moshi Wei, Lin Tan   **Sep 23rd 2019**

- Ensemble Learning using Convolution Neural Machine Translation for Automatic Program repair
Author: Thibaud Lutellier, Lawrence Pang, Viet Hung Pham, Moshi Wei, Lin Tan   **Jun 20th 2018**