Moshi Wei

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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
- Created Machine learning based **Recommender System** that recommend nominee to the user in social network by **Collaborative Filtering** based on the relevance between message and user.
- 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
- **Annual Innovation Award** at **Achievers** 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**