Zexi Han

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Availability: May 2019

EDUCATION

Northeastern University (NU), Boston, MA — Jan 2017-Present
College of Computer and Information Science, GPA: 3.8/4.0 — Expected Graduation: May 2019
*Candidate for a Master of Science in **Data Science***
Relevant Courses: Algorithms, Intro to Data Management and Processing, Machine Learning, Data Mining

Beijing University of Posts and Telecommunications (BUPT), Beijing, China — Sept 2012-Jun 2016
Joint Program with Queen Mary University of London (QMUL), GPA: 3.5/4.0
*Bachelor of Science in **Telecommunications Engineering**,* with the First Class Honors
Relevant Courses: Data Structures, Intro to Artificial Intelligence, Software Engineering, Linear Algebra, Probability Theory and Stochastic Process, Principles of Communications
Awards: BUPT Outstanding Final Project (Rank 12/680)

TECHNICAL SKILLS

Languages: Python, R, C++, Java, SQL, Matlab
Machine Learning: Linear/Logistic Regression, SVM, Random Forests, Neural Networks, Clustering, PCA, etc.
Tools: Tensorflow, Caffe, RStudio, Git, Vim, Linux

PROFESSIONAL EXPERIENCE

Data Science Co-op at Rue La La — Jan 2017-Present

Graduate Teaching Assistant at Northeastern University – CS6140 Machine Learning — Sept 2017-Dec 2017
- Led TA and review sessions, provided timely and appropriate feedback to students' doubts to support their learning.
- Delivered teaching activities including tutorials directed towards building various machine learning models.

Research Assistant at Tsinghua University – Edge Sensing Interaction for Smartwatch — May 2016-July 2016
- Discovered the accelerometer's data collected by tapping the edge of the smartwatch from 4/6/8 directions.
- Collected and preprocessed the accelerometer's data with Python in different scenes of life.
- Classified the tapping motion with logistic regression model and developed the Android Wear demo.

Research Assistant at Chinese Academy of Sciences – Image Retrieval with Deep Learning — Aug 2015-May 2016
- Developed a Three-stage Hybrid Image Retrieval Framework (Classification, Object Detection and Matching) to the task of same-design product image retrieval with convolutional neural networks.
- Experimented on the ALISC 5 million product image dataset with multiple CNN models using Caffe.
- Programmed for the backend of Android demo and achieved real-time same-design product image retrieval.

PROJECT EXPERIENCE

Data Mining on Yelp and Census Data, NU — Sep 2017-Dec 2017
- Extracted neighborhood-level features of business dynamics from Yelp dataset.
- Employed different clustering techniques to investigate the relationship between business dynamics and neighborhood dynamics.

Video Classification on YouTube-8M Dataset, NU — Mar 2017-Apr 2017
- Developed a classifier with TensorFlow that could assign the class label based on given features of the video using a subset of the Google's large-scale YouTube-8M dataset.
- Compared the model and accuracy performance of different machine learning algorithms (LR, SVM, ANN).

Life and Death of Great Open Source Projects, NU — Mar 2017-Apr 2017
- Collected, cleaned and processed repository activity data (issues and commits) from GitHub with R.
- Analyzed activity patterns for projects of different popularity and identified indicators and significant factors that are most directly related to a certain pattern.

Design & Build Winter Hack in London, QMUL — Oct 2015-Feb 2016
- Programmed for the object detection and color recognition algorithm with Python.
- Designed and implemented interactive motions for NAO Robot in Aldebaran.

Visualized Microenvironment Monitoring System, BUPT — May 2014-May 2015
- Built a multi-sensor embedded system based on Arduino that can monitor multiple environment variables, such as PM2.5, CO^2, CO, temperature, humidity, light and noise.
- Performed data analysis and designed the interactive visualization of indoor environment variables with Processing.