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
*Master of Science in **Data Science***
Relevant Courses: Algorithms, Machine Learning, Computer Vision, Large-Scale Parallel Data Processing

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, Calculus, Linear Algebra, Probability Theory and Stochastic Process, Principles of Communications
Awards: BUPT Outstanding Final Project (Rank 12/680)

TECHNICAL SKILLS

Languages:	Python, Java, Scala, SQL, R, MATLAB
Machine Learning:	LR, Bayesian, SVM, Tree-based, Ensembles, NN, CNN, RNN, Clustering, PCA, etc.
Database:	S3, Oracle Database, Snowflake
Tools:	MapReduce, Spark, AWS, Pandas, scikit-learn, Tensorflow, Caffe, OpenCV, Docker, Git, etc.

PROFESSIONAL EXPERIENCE

Data Scientist (Co-op) at Rue Gilt Groupe — Jan 2018-Jun 2018
- Worked on feature engineering and XGBoost model training from an iterative perspective to identify suspect resellers from over 2 million buyers, and put it into production as a block for the recommendation engine.
- Built docker apps for feature extraction, training and inference which were deployed to Amazon ECS and Airflow.
- Provided support for various database applications with robust SQL.

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-Jul 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
- Built 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.
- Developed the backend of Android demo and achieved real-time same-design product image retrieval.

PROJECT EXPERIENCE

Business-Neighborhood Interaction on Yelp and Census Data, NU — Sept 2017-Dec 2017
- Extracted representative neighborhood-level features of business dynamics from Yelp dataset.
- Employed K-Means and GMM clustering at both the Zillow Neighborhood and Census Tract level to identify clusters based on population characteristics and socioeconomic metrics.
- Investigated the relationship between local business dynamics and neighborhood characteristics.

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 loss and accuracy performance of different machine learning algorithms (LR, SVM, ANN).