Zexi Han

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20 Summer Street, Malden, MA 02148 zexihan@outlook.com | (617) 816-9210 Availability: May 2019

Expected Graduation: May 2019

EDUCATION

Northeastern University (NU), Boston, MA

Jan 2017-Present

College of Computer and Information Science, GPA: 3.8/4.0

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: Linear/Logistic Regression, SVM, Tree-based, Neural Networks, Clustering, PCA, etc.

Database: S3, Oracle Database, Snowflake

Tools: MapReduce, Spark, AWS, Tensorflow, Caffe, OpenCV, Docker, Git

PROFESSIONAL EXPERIENCE

Data Scientist (Co-op) at Rue Gilt Groupe

Jan 2018-Jun 2018

- Worked on feature engineering and training XGBoost model 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).

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.