Zexi Han

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EDUCATION

Northeastern University, Boston, MA — Jan 2017-Present
College of Computer and Information Science — GPA: 3.8/4.0
Candidate for a Master of Science in Data Science
Related Courses: Algorithms, Intro to R, Machine Learning, Data Mining, Information Retrieval, Computer Vision, Advanced Machine Learning

Beijing University of Posts and Telecommunications, Beijing, China — Sept 2012-Jun 2016
Joint Program with Queen Mary University of London — GPA: 3.5/4.0
Bachelor of Science in Telecommunications Engineering, with the First Class Honors
Related 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 SKILL

Coding: Python, R, SQL, Java, Matlab, C
Machine Learning: Linear/Logistic Regression, SVM, Random Forests, Neural Networks, KNN, PCA
Tools: Tensorflow, Caffe, RStudio, MySQL

RESEARCH EXPERIENCE

Tsinghua University, Beijing, China — May-July 2016
Research Intern, Human Computer Interaction

- Developed an Edge Sensing interaction for smartwatch of Android Wear system
- Built machine learning models to classify the accelerator's motion pattern when tapping from 4/6/8 directions of the smartwatch edge

National Laboratory of Pattern Recognition, Beijing, China — Aug 2015-May 2016
Research Intern, Deep Learning

- Proposed a Three-stage Hybrid Image Retrieval Framework (Classification, Object Detection and Matching) to the task of same design product image retrieval with Deep Learning (CNN)
- Experimented on the ALISC 5 million dataset with 10 high level concepts and 676 sub concepts
- Achieved the best mAP of 57.5 % on makeup and good performance on tops, snacks and drinks

ACADEMIC PROJECTS

Comparison of Machine Learning Algorithms for Video Classification on YouTube-8M Dataset 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 method and accuracy performance of different machine learning algorithms (LR, SVM, ANN)

Life and Death of Great Open Source Projects — Mar 2017-Apr 2017

- Collected, cleaned and processed repository activity data (issues and commits) from GitHub with R
- Developed Robust Scraping toolkit for GitHub API
- Identified activity patterns for different projects and pinpointed indicators and determining factors that are most directly related to a certain pattern

Design & Build Winter Hack in London — Oct 2015-Feb 2016

- Teamed up with 10 British and 10 Chinese students to work on NAO Robot at EECS Electronics Lab of QMUL
- Implemented image recognition and interactive motions for NAO Robot

Electronic Keyboard Scientific Project — July 2014-Sept 2014

- Designed and made the circuits according to the functional objectives
- Developed the teaching mode feature by programming C on the single chip microcomputer
- Scored 97/100 (60/600+)

MEBO Visualized Microenvironment Monitoring System — May 2014-May 2015

- Developed a multi-sensor embedded system using Arduino
- Realized the visualization of indoor environment variables and innovative interaction design
- Received wide acclaim in the innovation exhibition and won the Second National Prize