SHAN LU

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Homepage: baizhima.github.io • GitHub Account: baizhima

Education

Brown University — **Providence, Rhode Island**

Master of Science (Sc.M) in Computer Science — May 2017 (expected)

Courses undertaken: Database System Management, Computer Networks

Renmin University of China — **Beijing, China**

Bachelor of Science in Applied Mathematics — June 2015

Bachelor of Management in Agricultural Economics and Management — June 2014

University of California, Davis — **Davis, California**

Exchange Student (cumulative GPA 3.97/4.0) — January 2012 - December 2012

Experiences

Citadel (Hong Kong) Securities, LLC — **Hong Kong**

Intern quantitative researcher — June 2015 – August 2015

- Parsed FIX Adapted for STreaming (FAST) encoded market data stream from Shanghai and Shenzhen Stock Exchanges
- Implemented a Python/C++ extension that wraps data stream into Python objects by message types (StockStatus, Snapshot, Index, Trade, Order), supporting cross-language function callbacks
- Applied perfect hashing on attribute names to achieve O(1) time field accessing without explicit declarations

Multimedia Computing Laboratory, School of Information, Renmin University of China — **Beijing, China**

Undergraduate research assistant (Advisor: Prof. Xirong Li) — September 2013 – March 2015

- Extracted the 2048-dimensional DSIFT descriptors from raw images by using Bag-of-Words and Clustering
- Reassembled the SVM classifier with a Histogram Intersection Kernel to improve the overall top-5 accuracy by 8%
- Multimedia information retrieval research in annotating public source pictures from Flickr by their tag features

Recent Projects

Snowcast (Internet Radio Station) — September 2015

- Network programming based on Berkeley Socket API, sending messages between server and clients under TCP/UDP
- Multithreaded programming using POSIX threads on server-side to support non-blocking I/O intercommunication
- Finely tuned streaming rate with respect to each thread in order to play songs smoothly

New York Times Blogs Popularity Prediction — March 2015

- MOOC course project originated from MIT Analytics Edge, competition held on Kaggle, final ranking 102nd/2923
- Built an ensemble learning model on logistic regression and random forest in R, test set ROC metric: 0.90672

MOOC Certificates

- Statements of Accomplishment **with Distinction**: Coding the Matrix (Brown, 97.5%), Bioinformatics Algorithms I (UC San Diego, 97.2%), Computational Investing (Georgia Tech, 100%), Computing for Data Analysis (John Hopkins, 99%), Interactive Programming in Python (Rice, 90.9%), Introduction to Computational Thinking and Data Science (MIT, 93%), Introduction to Databases (Stanford, 90%), Machine Learning (Stanford, 95.6%), Web Application Architectures (University of Mexico, 90.9%)

- Statements of Accomplishment: Engineering as a Service (UC Berkeley), Statistical Learning (Stanford), Functional Programming in Scala (EPFL)

Skills

- Languages: Full professional proficiency in English, fluency in Chinese (Mandarin)
- Programming Skills: C/C++, Python, Java, MATLAB, R