

SHAN LU

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Education

Brown University

Providence, Rhode Island

Master of Science (Sc.M) in Computer Science

September 2015 – 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 SStreaming(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

Latest 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 mp3 formatted 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

Bioinformatics Algorithms I (UCSD, 97.2%)

Introduction to Databases (Stanford, 90%)

Coding the Matrix (Brown, 97.5%)

Machine Learning (Stanford, 95.6%)

Computational Investing (Georgia Tech, 100%)

Engineering as a Service, Part I (UC Berkeley)

Computing for Data Analysis (John Hopkins, 99%)

Statistical Learning (Stanford)

Computational Thinking and Data Science (MIT, 93%)

Functional Programming in Scala (EPFL)

Interactive Programming in Python (Rice, 90.9%)

Web Application Architectures (University of Mexico)

Skills

- Languages: Native in Chinese, full-proficiency in English
- Programming Skills: C/C++, Python, Java, MATLAB, R