### Shan Lu

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### **EDUCATION**

Brown University

September 2015 - May 2017(expected)

Master of Science(Sc.M) in Computer Science

Courses undertaken: Database Systems, Computer Networks

Renmin University of China

September 2010 - June 2015

Bachelor of Science in Applied Mathematics

Bachelor of Management in Agricultural Economics

University of California, Davis

January 2012 - December 2012

Exchange Student (cumulative GPA 3.97/4.0)

#### **EXPERIENCE**

Citadel (Hong Kong) Securities, LLC

June 2015 - August 2015

Intern Quantitative Researcher

- Parsed FAST(FIX Adapted for STreaming) protocol encoded streaming market data from Shanghai and Shenzhen stock exchanges.
- Implemented a Python/C++ extension that wrapped parsed market data into Python objects, supporting function callback mechanism.
- Optimization: applied Perfect Hashing on attribute names using gperf utility.

Multimedia Computing Lab, Renmin University of China August 2013 - May 2015 Undergraduate Research Assistant (Supervisor: Prof. Xirong Li)

- Extracted DSIFT descriptors from raw images by using Bag-of-Words and K-means clustering
- $\bullet$  Reassembled SVM classifier with a Histogram Intersection Kernel (HikSVM) to improve the overall top-5 accuracy by 8%

# LATEST PROJECT

Snowcast: Internet Radio Station

- Network programming based on Berkeley Socket API to send data and messages between server and clients under TCP/UDP protocols.
- Multithreaded programming using POSIX on server-side to support unblocked user interactions.

Kaggle Challenge: New York Times Blogs Popularity Prediction

- $\bullet$  MOOC course project held by MIT and edX, final ranking  $102\mathrm{nd}/2923$
- $\bullet$  Applied ensemble learning to logistic regression and random forest model programmed in R, test set ROC metric: 0.90672

## MOOC CERTIFICATES

Analytics Edge(MIT), Bioinformatics Algorithms(UCSD), Coding the Matrix(Brown) Computational Investing(Georgia Tech), Computational Thinking and Data Science(MIT)

Computing for Data Analysis(John Hopkins), Databases(Stanford)

Engineering Software as a Service(UC Berkeley), Functional Programming in Scala(EPFL)

Interactive Programming in Python(Rice), Machine Learning(Stanford)

Mining Massive Datasets(Stanford), Statistical Learning(Stanford)

SKILLS

Working Languages: English (full-proficiency) and Chinese (native) Programming Languages: Python, C/C++, Java, R, MATLAB