Qingyu Zhu

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## EDUCATION

**The University of Hongkong (HKU)** — Hongkong, China
M.S. in Computer Science, GPA: 3.5/4.0 — Aug. 2017 - May. 2019 (Expected)

**Nankai University (NKU)** — Tianjin, China
B.E. in Software Engineering, GPA: 3.3/4.0 — Aug. 2012 - May. 2016

## RESEARCH EXPERIENCE

**Data analysis and visualization based on business data**
Department of Computer Science, HKU — Feb. 2015 - Present

- Participated in several data mining projects. Duty includes document similarity calculation with Python and weather prediction based on Weka.
- Visualized the global flight itinerary map and multiple investment models such as the Black-Scholes model for option pricing and .
- Developed a data visualization website that supports exploring U.S. food market based on Yelp and government data.

**Evaluation and improvement on the Capital Asset Pricing Model**
Quantitative Economics Institute, NKU — Feb. 2015 - June. 2017

- Extended the capital price prediction model with a new momentum feature. Used the new model to analyze International software& computer mark and discovered the slow down of this industry.
- Introduced new factors to the price prediction model to describe the variance of error of time series data. The new features helped to capture the volatility of stock market and reduce the model's information loss by 10%.

**Business Intelligence System**
College of Software, NKU — Dec. 2015 - May. 2016

- Designed and developed a multidimensional data visualization system based on USA supermarket data. The intelligence system provides analysis services through heatmap, interactive histogram and geographic map developed by D3.js.
- Developed the back-end structure which includes the MySQL database and server based on Spring MVC framework; Deployed the website on AWS.

**Chinese Characters Learning Website**
College of Computer, NKU — September 2015 - January 2016

- Developed a Chinese characters learning website; managed team of 5 and budget of 5K RMB (funded by the Nankai University 100 Projects of Creative Research).
- In charge of designing and implementing the front-end with HTML5 and JSP; Participated in developing the back-end with Spring MVC framework.

## WORKING EXPERIENCE

**Data Analyst (Full-time Employee)**
Risk Management Dept, Home Credit Consumer Finance — Nov. 2016 Jun. 2017

- Contributed to develop the quick-response evaluation module for the online loan applying system, which can filter out unqualified application in the front-end.
- Analyzed the quality of loans based on the personal data and credit record; Improved the risk prediction model by validating and modifying its features.

**Java Developer (Intern)**
Java Development Internship, ChinaSoft International — Nov. 2014 Jun. 2014

- Leaded a four-member team to develop a social networking site and its Android app that support finding training partner and making exercise plan.
- Being in charge of front-end (Web and Android app) design and implementation; Contributed to database design and Spring MVC architecture coding.

**Data Analyst (Intern)**
Business Department, Faw Auto Finance — Oct. 2016 Nov. 2016

- Maintained the core databases and the loan system.
- Analyzed sales data and organized customer information.

## TEACHING EXPERIENCE

**Teaching Assistant**
Institute of Statistics and Econometrics, Nankai University — Feb. 2015 Jun. 2016

- Guided students through MatLab, Excel and SPSS projects.
- Provided suggestions for mathematical contest in modeling.

**Volunteer Teaching Assistant**
Greenway China, Guilin, China — Jul. 2013 Sep. 2013

- Translated for foreign teachers and collected students course feedback to foreign teachers.

## PUBLICATION

**Analysis of the Software and Computer Services Sectors with a New Carhart 4-Factor Model.**

- Published in Journal of Mathematical Finance, 2017, 7, 65-82. Corresponding Author.

**A New Fama-French 5-Factor Model with SSAEPD Errors and EGARCH-type Volatilities.**

- Published in Asian Academic Research Journal of Multidisciplinary, 2017, 4(4): 184-203. Corresponding Author.

**Value-at-Risk for US Bank Portfolio Based on a New Fama-French 5-Factor Model.**

- Under review. Corresponding Author.

## HONORS & AWARDS

**Meritorious Winner, US Mathematical Contest in Modeling (9%)** 2015
**Gongneng Scholarship, Nankai University (15%)** 2015
**Merit Student, Nankai University (15%)** 2016

## Frameworks & Tools

Data Visualization(Gephi, Tableau, D3.js, XDAT); Data Mining( Weka, scikit-learn); Web Development(Spring MVC, MySQL); Android Development( Android Studio).