

# SOPHIA CHEN

1984 Traver Rd., Ann Arbor, MI 48105

Email: chenyt@umich.edu

Phone: (734) 272 9480

## EDUCATION

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### University of Michigan

09/2018-12/2019

#### *Master of Science in Quantitative Finance and Risk Management*

Ann Arbor, MI

- Selected Coursework: Numerical Analysis with Financial Applications, Discrete State Stochastic Processes, Advanced Financial Mathematics, Applied Statistics

### Sun Yat-sen University (SYSU), School of Mathematics

09/2014-06/2018

#### *Bachelor of Science in Mathematics and Applied Mathematics*

Guangzhou, CHN

- Cumulative GPA: 3.50/4.00
- Selected Coursework: Mathematical Analysis, Ordinary Differential Equation, Numerical Analysis, Probability and Statistics, Advanced Language Programming Design (C++) and Stochastic Process
- Honor: Excellent Student Second-Class Scholarship (10%, 2015)

## PROFESSIONAL EXPERIENCES

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### Beagle Data

12/2017-02/2018

#### *Intern at Algorithm Department*

Beijing, CHN

- Researched the big data processing platform MaximAI and algorithms such as SVM, K-means, Generalized Linear and PCA to assess and identify the risk of the financial product
- Used PCA method and simulated the portfolio pricing in MATLAB to evaluate the structured product

### Zhejiang Internet Financial Assets Trading Center

07/2016-08/2016

#### *R&D Engineer*

Beijing, CHN

- Joined the cooperative project of Fushuibao and China Unicom, successfully solving target customers selection issues and index selection matters
- Applied R language to establish matrix for analysis of 210,000 pieces of customs revenue data
- Built up index pool and used Python to get specific indicators and settle collinearity problems

### Think Tank

01/2017-02/2017

#### *Assistant in Editorial Department*

Beijing, CHN

- Undertook WeChat Official Account management tasks, including writing, uploading, and editing articles and replying to public comments

## ACADEMIC RESEARCH

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### *Financial Numerical Calculation and Quantitative Research*

09/2016-12/2016

- Leveraged the finite-dimensional optimization methods including Line Search Methods, Newton-Raphson Method and Quasi-Newton Methods in MATLAB to calculate optimal solutions
- Studied the Constrained Optimization by reading more than 20 papers in English and composed the research report

### *Research on Supply Chain Finance*

03/2016-07/2016

#### *Research Assistant to Professor Yan Zeng*

- Utilized the least second moment method to help export enterprises to evaluate exchange rate risk issues based on comparative study of optimal hedge ratios estimation
- Analyzed three different modified optimal hedge ratios to build the theoretical framework and figured out optimal hedging strategy to reduce risks

## OTHER

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### *Mathematical Contest in Modeling (MCM/ICM) (twice)*

Team Leader

02/2017

- Led two team members to search for information and select the topic of *Evaluation of a City's Smart Growth Degree*
- Embarked on modeling and thesis formulation and awarded as the Honorable Mentions of MCM/ICM (2017)

### *Student Council of SYSU*

Secretary of Sports Committee

08/2014-08/2015

- Led the recruitment team to select resumes and interview the 25 potential students and planned sports activities
- Organized several sports activities, such as sports meetings and freshman basketball games

### *Technical Skills*

- C Language, C++, R, MATLAB and Python (Basic)

### *Languages*

- Mandarin Chinese (native), English (fluent)