

# Bixi Jian

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## Education

- **Ph.D. in Economics, McGill University** **Expected May 2017**  
Fields of Study: Financial Econometrics, Risk Management, Empirical Asset Pricing  
Thesis Title: *Essays in Risk Modelling, Asset Pricing and Network Measurement in Finance*
- **M.A. in Economics, University of British Columbia** **August 2012**  
Fields of Study: Economics, Applied Econometrics
- **B.A. in Economics, Nankai University** **July 2011**

## Work Experience

- **CIRANO, Montreal, Canada** **February 2013 - Present**  
*Researcher*
  - Profiled, cleaned and analyze over 20 GB stock and option data in Python.
  - Ran over 30 million regressions and Granger testings with Python on Amazon EC2 to obtain stocks' interconnections, and successfully discovered new risk factors that can earn about 4% premium per year on average with a simple long/short strategy rebalanced annually.
  - Applied LASSO approaches, VAR models and a causality measure to estimate high-dimensional volatility spillovers among the S&P 100 stocks, and constructed confidence intervals using bootstrapping techniques using Python.
  - Developed a new Dynamic Stable GARCH model to differentiate tail risks and normal financial fluctuations to provide a better out-of-sample prediction of VaR at the levels above 95%, and proposed a fast Monte-Carlo test procedure to resolve inference issues in Matlab.
- **Essence Securities, GZ, China** **July - August 2010**  
*Assistant Stock Analyst*
  - Analyzed Chinese stock market data to form stock portfolios based on calculated technical indices.
  - Wrote stocks' tracking reports and presented the results in internal meetings.
  - Provided professional investment advice to high-value clients and maintained relationships with them.
- **Guangdong Development Bank, GZ, China** **January - February 2010**  
*Assistant Risk Controller*
  - Assisted to improve internal credit scoring system for small and medium-size enterprises.
  - Arranged analytical reports of loan projects for small and medium-size enterprises.

## Research Papers

- *Centralities in Illiquidity Transmission Networks and the Cross-Section of Stock Returns*
- *Multiple Horizon Causality in Network Analysis: Measuring Volatility Interconnections in Financial Markets* (joint with Jean-Marie Dufour), under reviewed by *Review of Economic Studies*
- *Stable GARCH Model with Time-Dependent Tails*

## Additional Information

- **Quantitative Skills:** Factor-Based Forecasting, Time Series Econometrics, Monte Carlo and Bootstrapping Methods, Big Data Analysis, Machine Learning, Statistical Modelling, Stochastic Calculus
- **Computer Skills:** Python, Matlab, R, C++, SAS, SQL, Stata, Excel
- **Professional Certification:** Passed of the FRM Exams (Level 1 and Level 2) in November 2014
- **Languages:** English (fluent), Cantonese (native), Mandarin (native)
- **Hobbies:** Hiking, Snowboarding, Snooker, Cooking