

FANG LI

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EDUCATION

University of Alberta | Edmonton, Alberta

September 2021 - June 2024 (Expected)

Ph.D. Candidate in Economics (GPA: 4.0/4.0)

- **Dissertation:** Essays in Macroeconomics and Corporate Finance
- **Research Interests:** Empirical Macroeconomics, Dynamic Stochastic General Equilibrium (DSGE) models
- **Core Courses:** Structural VAR Analysis and Shock Estimation, Design and Estimation of RBC and New Keynesian Models, Bayesian VARs and Sign Restriction Identification, Advanced Topics in Macro Finance
- **Awards:** Graduate Teaching Assistantship
- **Notes:** Transferred from the University of Delaware (Delaware, Newark) as a Ph.D. student in Economics and Quantitative Economics (GPA: 3.95/4.0). I passed the Ph.D. comprehensive exam at the University of Delaware and received a *high pass* in both the microeconomics and macroeconomics sections. In addition to economics courses, I also got an A in ELEG815 (Statistical Learning) and CISC684 (Machine Learning).

Xiamen University | Xiamen, China

September 2014 - June 2017

Master of Science in Economics

- **Awards:** Outstanding Graduates (2017)
- **Scholarship:** National Scholarship for Graduate Students – Ministry of Education (2015)

Wuhan University | Wuhan, China

September 2010 - June 2014

Bachelor of Science in Finance and Bachelor of Law (minor)

INDUSTRIAL EXPERIENCE

Manulife Insurance | Hong Kong SAR, China

June - August 2022

Investment Advisor, Summer Intern

- Conducted portfolio analysis to assist 20+ clients in making informed investment decisions with strategic advice on asset allocation.
- Assessed risk exposure and performance metrics to support the development of investment proposals for high-value clients.
- Provided advisory services to clients and successfully built trust by leveraging subject matter expertise in finance and economics.
- Supported the Quant Research Team in driving the adoption of data analytics tools and advanced econometric techniques.
- Utilized statistical programming skills to help the Investment Advisory Team in revamping their analytical abilities and software.
- Gained well-rounded experience and exposure in the financial industry through cross-functional collaboration and job shadowing.
- Received compliments from the Regional Director for taking the initiative to host a professional development seminar on the application and best practices of Machine Learning and statistical programming in financial analysis.

Guosen Securities Co., Ltd. | Shenzhen, China

June - December 2016

IPO Analyst (Intern), Investment Banking Division

- Mentored by senior officers at the second largest investment bank in China, which generates an annual revenue of 6.8 billion.
- Worked in a team to investigate the IPO prospectus and performed financial due diligence for a multi-billion-dollar cybersecurity firm.
- Led walk through tests to evaluate internal processes for potential risks, scrutinize process adequacy, and improve oversights.
- Demonstrated proficiency in financial modeling, particularly IPO and equity valuation, showcasing strong business and technical acumen.
- Conducted financial due diligence, with a specific focus on validating accounts receivable, to guarantee the precision and legitimacy.
- Hosted a “Lunch and Learn” training session to help cross-functional team members learn more about IPO and financial modelling.
- Showed the ability to excel under high pressure in a fast-paced environment and developed a high level of business professionalism.

WORKING PAPERS

Identifying the Demand and Supply Shocks

- (Joint Paper with Dr. Marco Brianti) Developed an efficient method to identify demand and supply shocks using simulated data from a DSGE model, showcasing strong correlation with actual shocks. This method is computationally efficient and adaptable to Bayesian approaches.

Identifying Oil Uncertainty Shocks

- Introduced a method to identify “oil uncertainty shocks” in the oil sector using derivatives price data. These shocks remained significant even after accounting for aggregate uncertainty.

Corporate Cash, Investment, and Uncertainty

- (Job Market Paper) Conducted empirical research using Compustat and TRACE data, revealing positive responses of cash holding, investment, and dividends to cash shocks. However, when considering aggregate uncertainty levels, investment decreased while dividends increased, explained through a DSGE model.

PROJECTS

PySVAR

- I developed a python library for SVAR (Structural Vector Autoregression). The key feature of this library enables SVAR model estimation similar to using sklearn, making it easier for researchers to use multiple identification methods for SVAR modeling.
- Github: <https://github.com/fangli-DX3906/PySVAR>

Heterogenous Agents Resources & toolKit (HARK) | University of Delaware

June - Spetember 2020

Assistant to Dr. Matthew White

- I actively contributed to the development of the Heterogeneous Agents Resources and toolKit (HARK) master branch. Programmed search models using Python, including a model with non-additive separable disutility of search and a model with discrete state of unemployment benefits.
- Github: <https://github.com/fangli-DX3906/HARK>

TECHNICAL SKILLS

- **Programming:** Python, C++, Matlab, L^AT_EX
- **Software:** STATA, Dynare
- **Libraries:** backtrader, Scikit-Learn, Scrapy/scrapy-redis, statsmodels, financepy
- **Statistics:** Structural Vector Autoregression modelling, Perturbation method, General Linear Model, Fama-Macbeth regression, Statistical/ Machine Learning methods

TEACHING EXPERIENCE

University of Alberta | Alberta, Canada

September 2021 - December 2023

Graduate Teaching Assistant, Department of Economics

- Managed assignment and exam grading with a commitment to maintaining high academic standards and ensuring fair evaluation.
- Hosted office hours and discussion sessions to help students develop a solid understanding of advanced Economics concepts.

University of Delaware | Newark, Delaware, United States

September 2019 - May 2021

Graduate Teaching Assistant, Alfred Lerner College of Business and Economics

- Led weekly discussion sessions for four PhD-level courses in Microeconomics Theory and Econometrics, fostering an engaging and interactive learning environment for over students and supporting their academic growth through regular evaluation and feedback.
- Accumulated 8 hours of monthly office hours for a total of 20 hours per semester to address students' inquiries and learning needs.

Southern University of Science and Technology | Shenzhen, China

June 2017 – January 2018

Research Assistant and Lab Instructor, Department of Finance

- Processed extensive financial data using CRSP, TRACE, and Compustat financial databases, involving approximately 30k data points.
- Collected, cleaned, and analyzed financial data in asset pricing and corporate finance, ensuring data accuracy and relevance.
- Delivered programming instruction in MATLAB and STATA to graduate-level students in Quantitative Investment and undergraduate-level students in Introduction to Econometrics, enhancing their quantitative analysis skills.

REFERENCES

Dr. Marco Brianti (advisor)

Department of Economics

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Dr. Sahil Raina (committee member)

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Dr. Valentina Galvani (committee member)

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