

# Fred Liu

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## Citizenship

Canadian Citizen, United States Permanent Resident

## Research Interests

Financial Econometrics, Machine Learning, Asset Pricing, Risk Management, Big Data

## Programming Experience

R, Python, Matlab, Spark, H2O, SQL, Stata, Java, and  $\LaTeX$ . Certified in SAS from Statistics Canada.

## Education

Ph.D. Economics, University of Western Ontario	Expected April, 2021
M.A. Economics, University of Western Ontario	2015
B.A. Economics, University of Waterloo	2014
B.A. Business Administration, Wilfrid Laurier University	2012

## Publications

Regulatory Capital and Incentives for Risk Model Choice under Basel 3 (with Lars Stentoft), *Journal of Financial Econometrics*, forthcoming. Invited to be presented at the European Central Bank.

## Working Papers

Intraday Market Predictability: A Machine Learning Approach (with Dillon Huddleston and Lars Stentoft), *Journal of Financial Econometrics*, Invited for Submission, 2020.

Can the Premium for Idiosyncratic Tail Risk be Explained By Exposures to its Common Factor? (Job Market Paper), 2020.

A Machine Learning Framework for Basel 3 Market Risk, 2020.

## Conference & Seminar Presentations

<b>Can the Premium for Idiosyncratic Tail Risk be Explained By Exposures to its Common Factor?</b>	
60th Annual Meeting ( <i>Invited</i> ), Southern Finance Association	2020
Seminar, University of Waterloo	2020
Society of Financial Econometrics Summer School, University of Chicago	2020
Society of Financial Econometrics Summer School, Northwestern University	2019
Canadian Economics Association, McGill University	2018

Economics PhD Conference, University of Waterloo	2018
Seminar, University of Western Ontario	2017
<b>Regulatory Capital and Incentives for Risk Model Choice under Basel 3</b>	
Internal Models ( <i>Invited</i> ), European Central Bank	2020
Canadian Econometrics Study Group ( <i>Plenary Session</i> ), York University	2017
Canadian Economics Association ( <i>Bank of Canada Graduate Awards Session</i> ), St. FX University	2017
Economics PhD Conference, University of Waterloo	2016
Seminar, University of Western Ontario	2016

## Honors, Awards, and Fellowships

Social Sciences & Humanities Research Council Doctoral Fellowship (SSHRC), Canada ( <i>National Research Fellowship</i> )	2018-2020
Ontario Graduate Scholarship, Ontario, Canada	2016, 2017
Economics Graduate Scholarship, University of Western Ontario	2014-2019
Tutorial Teaching Assistant of the Year, University of Western Ontario	2015
Award for Distinguished Academic Achievement, University of Waterloo ( <i>for highest graduating GPA in Economics</i> )	2014
Economics Achievement Award, University of Waterloo	2014
Colin McEwen Award for Excellence in Writing, Wilfrid Laurier University	2009
WLU SBESC Stock Competition Finalist, Wilfrid Laurier University	2008
FIRST Robotics Tech Challenge World Championship runner-up, Atlanta, Georgia	2007

## Employment

Research Assistant, Economics, University of Western Ontario	2017 - Current
Research Assistant, Economics, Ivey School of Business	2015 - 2017
Teaching Assistant, Economics, University of Western Ontario Tutorial Instructor: Microeconomics, Macroeconomics ( <i>Student Evaluations: 2014: 4.65/5, 2015: 4.91/5</i> )	2014 - 2017
Junior Methodologist, Statistics Canada Division: Quarterly Financial Survey	2010

## Service

Referee for the International Journal of Forecasting  
Laurier Foot Patrol  
FIRST Robotics mentor and event volunteer

## References

### **Lars Stentoft (Advisor)**

Associate Professor  
Department of Economics  
University of Western Ontario  
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### **Tim Conley**

Professor and Chair  
Department of Economics  
University of Western Ontario  
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### **Charles Saunders**

Assistant Professor  
Masters of Financial Economics Director  
Department of Economics  
University of Western Ontario  
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## Placement Officer

### **Lance Lochner**

Professor  
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University of Western Ontario  
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