

# 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

## 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.

**(Scheduled for presentation at the European Central Bank)**

Intraday Market Predictability: A Machine Learning Approach (with Dillon Huddleston and Lars Stentoft), *Journal of Financial Econometrics*, conditionally accepted. **Invited by Chief Editors.**

## Working Papers

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.

## Honors, Awards, and Fellowships

Social Sciences & Humanities Research Council Doctoral Fellowship, Canada (SSHRC National Research Fellowship) 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 (for highest graduating GPA in Economics)	2014
Economics Achievement Award, University of Waterloo	2014
Colin McEwen Award for Excellence in Writing, Wilfrid Laurier University	2009
SBE Stock Competition Finalist, Wilfrid Laurier University	2008
FIRST Robotics Tech Challenge World Championship runner-up, Atlanta, Georgia	2007

## Conference & Seminar Presentations

### Upcoming Presentations

Internal Models Investigations Division, European Central Bank	2020
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### Can the Premium for Idiosyncratic Tail Risk be Explained by Exposures to its Common Factor?

60th Annual Meeting, 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

### Regulatory Capital and Incentives for Risk Model Choice under Basel 3

Canadian Econometrics Study Group ( <i>Plenary Session</i> ), York University	2017
Canadian Economics Association ( <i>Bank of Canada Graduate Awards</i> ), St. FX University	2017
Economics PhD Conference, University of Waterloo	2016

## Employment

Research Assistant for Lars Stentoft, Department of Economics, UWO	2017 - Current
Research Assistant for Davin Raiha, Ivey School of Business	2015 - 2017
Tutorial Instructor, Department of Economics, University of Western Ontario	2014 - 2016
Taught weekly tutorials for Principles of Microeconomics and Macroeconomics	
<b>Voted Tutorial Teaching Assistant of the Year in 2015</b>	
(Student Evaluations: 2014: 4.65/5, 2015: 4.91/5)	
Teaching Assistant, Department of Economics, University of Western Ontario	2016 - 2017
Junior Methodologist, Quarterly Financial Survey Division, Statistics Canada	2010

## Service

Referee for the International Journal of Forecasting

Laurier Foot Patrol

FIRST Robotics mentor and event volunteer

## Programming Experience

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

## 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  
Email: csaund9@uwo.ca  
Phone: 519-661-2111 Ext. 85410

## Placement Officer

### Lance Lochner

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