RYAN CUMMINGS
3831 Woodland Park Ave N, Apartment #6, Seattle, WA, 98103
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Academic Background

University of Washington, Seattle, WA

PhD Candidate in Economics, 2018-Present.

Concentrations: Macro-finance, Machine Learning.

Relevant Coursework: PhD: first-year sequence of Macroeconomics, Microecononomics, and Econometrics. M.S.: Financial Econometrics, Economics of Derivatives, Microeconometrics, Time-Series. Will take full sequence of Machine Learning, Finance, and Macroeconomics in 2nd Year.

Johns Hopkins University, Baltimore, MD

M.S., Applied Economics, Concentration in Financial Economics, 2015- 2017;

Degree completed while working full-time.

DePaul University, Chicago, IL

B.A., Economics, Minors in Mathematics and Business Administration, 2011- 2014

Professional Experience

University of Washington, Seattle, WA, 2018-Present

- Graduate Student Instructor, 2018-Present

National Economic Research Associates (NERA), Securities and Finance Practice, Washington, D.C., 2014-2018

- Senior Analyst, 2018-2018
- Analyst, 2016-2018
- Associate Analyst, 2015-2016
- Research Associate, 2014-2015

UBS Corporate Cash Management Group, Chicago, IL, 2014-2014

Intern, 2014-2014

Research Experience

DePaul University

Research Assistant:

- *Part-time Employment and Health Insurance Reform: What Can Massachusetts Tell Us about the Affordable Care Act?*, 2013-2014
- *Impacts of Community Divorce Laws on Opening a Small Business*, 2012-2013
- C*lashing Analyses of Speculation and the Early Regulation of US Grain Futures Markets,* 2012-2013

Publications

- "Speculation, Excessive " with Sharon Brown-Hruska and Pete Lissey. Book chapter in the *SAGE Encyclopedia of Economics* (2018).

Skills and Involvement:

Computer Software

- Python, Stata, Excel, R.

Organizations

- American Economic Association (member), National Economists Club(member).

Citizenship/Languages

- US citizen; native fluency in English; conversational proficiency in Spanish.

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May 31, 2019

Dear Conference Organizers,

My name is Ryan Cummings and I am an incoming second year PhD student in Economics at the University of Washington ("UW"). I am writing to express my interest in attending the 2019 NBER Young Scholars Workshop on the Economics of AI. As a graduate student who is in the beginning stages of his dissertation, I believe attending this conference would be immensely beneficial towards my efforts of contributing to the expanding knowledge and literature on the application of AI and Machine Learning ("ML") to areas such as finance and macro.

My interest in the application of AI and ML to economics developed after I began my PhD program at UW. I came to UW wanting to explore the intersection of macro and finance, but was particularly taken with how ML methods might be applied to problems in both fields after taking econometrics with Professor Eric Zivot, who is currently consulting for Amazon and has discussed the expanding intersection between ML and both econometrics and finance. This led me to explore the work of pioneers in the field such as Bryan Kelly (2018), who illustrated how classic empirical asset pricing problems might be approached through an ML framework. I additionally enjoyed learning from the work of Chakraborty and Joseph (2017), who presented several ways ML could help contribute to central bank decision-making.

I will continue to expand my knowledge of ML in my second year by taking the graduate computer science sequence in the field, which consists of three courses that focus on established ML techniques and theory, ML techniques for "Big Data," and the development of new ML methods (in addition to taking further finance, econometrics, and macro classes). It is my sincere hope that I can further deepen my knowledge to make a valuable contribution to the field.

Sincerely,

Ryan Cummings