Danial Salman

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January 25th, 2025

NBER
1050 Massachusetts Avenue
Cambridge, Massachusetts 02138-5398

Dear Kevin Bryan, Ina Ganguli, and Kyle Myers:

I am writing to express my keen interest in participating in the NBER Innovation Research Boot Camp 2025. As a doctoral candidate in finance at the Foster School of Business at the University of Washington, I am eager to contribute to and learn from the exceptional community of scholars and practitioners that the NBER brings together.

My research centers on the economics and financing of innovation. Under the supervision of Professor Léa Stern, who is also providing my letter of recommendation, I am analyzing the impact of innovative technologies on market participants and studying the role of venture capitalists in fostering research and innovation within their portfolio companies.

In addition to my research, I have completed a range of PhD-level courses in economics, finance, and computer science. A detailed list of these courses is enclosed alongside my application essay. Since I have not yet taken formal coursework specifically on the economics of innovation, I am eager to bridge this gap through the Boot Camp's unique program.

Thank you for considering my application. Please do not hesitate to contact me if additional information or materials are required.

Sincerely,

Danial Salman
University of Washington

DANIAL SALMAN

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215 10th Ave E, Apt 425
Seattle, WA 98102

EDUCATION

Ph.D. Finance *2022 - present*
University of Washington, Foster School of Business

Ph.D. Economics student *2019 - 2022*
University of Washington

M.A. and **B.A.** Economics *2013 - 2016*
Boston University

RESEARCH INTERESTS

Household Finance, Venture Capital, Innovation, Entrepreneurship

WORKING PAPERS

End of the Road? Autonomous Vehicles and Displacement Risk

New technologies have motivated renewed concerns about job displacement. In this paper, I proxy for workers' subjective displacement expectations using a social network-based exposure measure. I find that the share of commercial driver licenses and employment in truck driving fall disproportionately in areas that are more socially connected to Phoenix and San Francisco, cities with large-scale autonomous vehicle testing. The remaining drivers extend their work hours and decrease participation in mortgage markets relative to less connected, neighboring drivers. The results suggest that welfare or policy assessments concerned with the impact of automation should account for an anticipatory channel.

Relief Beliefs: Effects of Anticipated Student Loan Forgiveness (with Xuan Xie)

Political support for student loan forgiveness has been growing, particularly on the left, but evidence regarding its effects remains limited. We evaluate the immediate consumption response to President Biden's 2022 loan forgiveness announcement which promised debt relief of $10,000 to $20,000 for approximately 42 million borrowers. We find that retail stores located in counties with a 1% higher share of eligible student loan borrowers saw a persistent 0.1% increase in weekly sales. The positive spending response was absent in counties with high shares of delinquent households. Novel data on debt relief eligibility and applications suggest that student loan borrowers anticipated relief they ultimately did not receive.

WORK IN PROGRESS

Who Benefits from Venture Capital? (with Victor Lyonnet and Léa Stern)

PUBLICATIONS

Pre-doctoral:
"Institutional and Political Determinants of Statutory Tax Rates: Empirical Evidence from Sub-Saharan Africa" (with Sanjeev Gupta, Carlos Mulas-Granados, Jianhong Liu and Kelsey Ross)
Journal of African Development, 2021 [Paper]

"The Future of Central America: Challenges for Sustainable Development"
Inter-American Development Bank, 2019 [Book]

CONFERENCES

Western Economic Association International *2024*
Financial Management Association Annual Meeting (discussion) *2024*

AWARDS

Edna Benson Fellowship *2023*
Foster PhD Program Fellowship *2022*
George and Pearl Corkery Scholarship *2019*
Student Research Award *2016*
Presidential Scholarship *2013-2016*

EXPERIENCE

University of Washington *2021 - Present*
Research Associate

University of Washington *2019 - Present*
Teaching Assistant

Center for Global Development *2017 - 2019*
Research Assistant

Inter-American Development Bank *2017*
Consultant

Boston University *2016*
Research Assistant

United Nations Secretariat *2016*
Intern

REFERENCES

Léa Stern
Assistant Professor of Finance and Business Economics
Foster School of Business, University of Washington
leastern@uw.edu

Stephan Siegel
Professor of Finance and Business Economics
Foster School of Business, University of Washington
ss1110@uw.edu

Philip Bond
Professor of Finance and Business Economics
Foster School of Business, University of Washington
apbond@uw.edu

Jarrad Harford
Professor of Finance and Business Economics
Foster School of Business, University of Washington
jarrad@uw.edu

MISCELLANEOUS

Data Special Sworn Status (US Census Bureau)
Software Python, Julia, R, Stata, SAS
Languages English, French, Spanish, Urdu/Hindi
Volunteer Court Appointed Special Advocate (CASA)

PhD Course List

Economics

1. Microeconomic Theory
2. Macroeconomics: Theory and Empirics
3. Econometric Theory: Extremum Estimation, Nonparametric, and Semi-parametric Methods
4. Game and Contract Theory
5. Experimental Economics and Social Networks

Finance

1. Corporate Finance: Theory and Empirics
2. Asset Pricing: Theory and Empirics
3. Behavioral and Household Finance
4. Financial Intermediation

Computer Science

1. Machine Learning
2. Algorithmic Fairness
3. Interactive Learning

NBER Innovation Research Boot Camp

Application Essay

Danial Salman

January 25, 2025

Investigating the impact of innovative technologies, such as artificial intelligence (AI) and autonomous vehicles (AV), on market participants lies at the core of my research agenda. My job market paper examines how workers, facing uncertainty about future job displacements and the value of their human capital, respond to the threat of automation. Using the case of truck drivers—a group of workers for whom displacement risk has been highly salient—I demonstrate that labor market reallocations are already occurring, even before the widespread deployment of self-driving cars and trucks. Specifically, I find that commercial driver licensing and employment in truck driving decline disproportionately in areas more socially connected to Phoenix and San Francisco, two hubs for large-scale AV testing. These results highlight the importance of considering a novel labor supply channel in welfare and policy assessments: workers, anticipating the redundancy of an occupation, preemptively reduce their labor supply to that occupation.

For innovative technologies to impact the economy, they must secure financing. Given the critical role of venture capitalists (VCs) in funding innovation, my research also focuses on understanding which high-growth entrepreneurs benefit from venture capital. To address this question, Léa Stern, Victor Lyonnet, and I are collaborating on a project using restricted-use Census Bureau datasets, which provide essential details into the innovative activities of startups. We are particularly interested in the role of VCs in fostering research and innovation within their portfolio companies, with a specific focus on whether AI tools can enhance both efficiency and the diversity of ideas receiving funding.

I would be thrilled to attend the NBER Innovation Research Boot Camp for two primary reasons. First, while my research is on the economics and financing of innovation, my direct exposure to these topics has been limited. The opportunity to learn from leading scholars in the field represents an unparalleled chance to quickly reach the academic frontier of innovation research. Second, the Boot Camp's structure promises to cultivate meaningful connections with fellow participants who share a similar passion for innovation studies. As a PhD candidate at the start of my academic career, I am confident that these connections will be invaluable, nurturing collaborations and insights that will enrich my research for years to come.

Thank you for your time and consideration of my application.

Danial Salman

Léa H. Stern
Assistant Professor of Finance and Business Economics
Carol Batchelder Endowed Finance Faculty Fellow
448 Paccar Hall, 4277 NE Stevens Way, Seattle, WA 98195
Email: leastern@uw.edu

February 5th 2025

Dear NBER Innovation Bootcamp Organizers:

I give my highest recommendation to Danial Salman for the NBER Innovation Bootcamp. Danial is a 5th year PhD student at UW who has demonstrated exceptional research aptitudes and intellectual maturity. His job market paper, which examines labor market response to automation expectations among truck drivers, showcases his creative approach to research. Danial is also interested in the financing of innovation through venture capital.

While his research interests gravitate around the impacts of innovation and the financing of innovation, our finance department at UW offers limited formal coursework in this area. The bootcamp would provide him invaluable exposure to cutting-edge research and connect him with scholars sharing similar interests.

His strong communication skills and intellectual engagement would make him a fabulous contributor to the bootcamp. I am convinced he would engage meaningfully in intellectual exchanges and forge lasting and productive relationships with participants.

Please do not hesitate to contact me if you need any additional information.

Sincerely,



Léa Stern