JACK COLLISON

(715) 212-4370 ⋄ jack10@stanford.edu ⋄ jackcollison.github.io
PO Box 12680 531 Lasuen Mall, Stanford, CA 94309

EDUCATION

Stanford University *Stanford, CA*

Master of Science in Statistics (3.84/4.0) Expected 2021

Relevant Coursework: probability theory, statistical inference, matrix theory, real analysis, time series, applied statistics, statistical learning, machine learning, causal inference

Stanford University *Stanford, CA*

Bachelor of Arts in Economics with Honors (3.78/4.0) June 2020

Honors Thesis: "The Impact of Online Food Delivery Services on Restaurant Sales"

Advisor: Liran Einav

Relevant Coursework: microeconomics, macroeconomics, econometrics, market design, programming abstractions, multivariable calculus, linear algebra

GRANTS AND AWARDS

Anna Laura Myers Prize for Outstanding Honors Thesis	Stanford University, 2020
Economics Departmental Honors	Stanford University, 2020
Department of Economics Summer Research Grant	Stanford University, 2018
National Merit Finalist	College Board, 2016
AP Scholar with Distinction	College Board, 2016
International Science and Engineering Fair Finalist	Intel, 2014, 2015

PUBLISHED AND FORTHCOMING PAPERS

1. "A survey of southern hemisphere meteor showers," with Peter Jenniskens, et al. *Journal of Planetary and Space Science*, 154, May 2018, 21-29.
2. "Artificial Intelligence Techniques applied to Automating Meteor Validation and Trajectory Quality Control to Direct the Search for Long Period Comets," with Marcelo De Cicco, et al. *Proceedings of the International Meteor Conference*, September 2017.
3. "Searching for Long-Period Comets with Deep Learning Tools," with Susana Zoghbi, et al. *Neural Information Processing Systems: Deep Learning for Physical Sciences*, December 2017.

PAPERS UNDER REVIEW

1. "The Impact of Online Food Delivery Services on Restaurant Sales," revise and resubmit, *International Journal of Industrial Organization.*
2. "Trends in Hospital Prices for the Publicly and Privately Insured, 2009-15," with Toren Fronsdal.

RESEARCH EXPERIENCE

Stanford University Department of Economics May 2019 - Current
Independent Researcher Stanford, CA

Conduct economics research using big data. Quantified crowding-out effects induced by online food delivery services and examined differential trends in hospital prices. Current interests include competition in e-commerce and mergers in insurance markets.

Stanford University Department of Economics October 2017 - May 2019
Research Assistant Stanford, CA

Analyzed credit card data from Visa Inc. on the universe of retail outlets in the U.S. accepting Visa credit and debit cards. Developed a comprehensive dataset on retail establishment location, entry, exit and card transactions for understanding offline and online competition and growth.

EXPERIENCE

Ellington Management Group September 2020 - Current
Research Analyst Intern Old Greenwich, CT *(Remote)*

Projects include creating new models to assess risk with various optimization techniques and modifying existing models for better performance.

QuantCo June 2020 - September 2020
Quantitative Research Intern Berlin, Germany *(Remote)*

Responsibilities included developing and implementing algorithms to drive important business decisions. Projects included identification of harmful drug interactions and construction of a novel deep learning framework for surgical prediction.

Stanford University Department of Statistics April 2020 - June 2020
Statistics Grader Stanford, CA *(Remote)*

Responsible for grading problem sets for about 200 undergraduate students in an introductory statistics course.

Ellington Management Group June 2019 - September 2019
Research Analyst Intern Old Greenwich, CT

Analyzed large datasets, formulated statistical models, and assisted in executing trades with ad hoc analysis. Responsible for the creation of new datasets and statistical models on opaque products and markets.

NASA Frontier Development Lab June 2017 - August 2017
Research Intern Mountain View, CA

Automated the process of tracking and analyzing meteor showers associated with long period comets. Deep learning was used for false positive discrimination. Additionally, wrote a policy brief to NASA Headquarters on investment in artificial intelligence techniques.

LEADERSHIP

Stanford Statistics for Social Good February 2017 - Current
Co-Chair, Researcher Stanford, CA

Chair of working research group of graduate students that analyzes complex social problems. Responsibilities include organizing panels, events, projects, and meetings, as well as conducting statistical analysis.

Stanford Code the Change September 2016 - June 2017
Web Developer Stanford, CA

Helped design and create a website for CultureMesh, a nonprofit social networking platform that connects refugees.

SKILLS

Programming: Python, R, SQL, C++, Stata, Java, HTML, CSS, Javascript, Excel
Languages: English (native), Spanish (intermediate), Mandarin (elementary)