To Whom It May Concern,

My research focus is at the intersection of AI and economics. Specifically, how can we use AI to teach us about an economic system? And, what are the effects of AI on the economy?

I am currently mostly focused on an empirical asset pricing project that I am working on with a fellow graduate student. We are using social text data as input to an NLP neural network that forecasts cryptocurrency returns. Given these assets have no cash flow, we aim to shed light on potential mechanisms forming prices using the underlying high-dimensional text data. For example, we can trace Bitcoin's meme of "digital gold" through the social network and its positive correlation with price. This approach is in the spirit of a project that I worked on as an RA prior to my PhD for Professors Sendhil Mullainathan and Ziad Obermeyer. The goal was similarly to use machine learning not with the aim of generating the best out-of-sample prediction but rather as a tool for discovery.[1]

I am also interested in studying the effects of AI on the economy. I have yet to investigate this much myself besides following the early literature, which is why I would tremendously value the conference discussions with the leading researchers in this space. For example, as discussed in your research agenda, there seem to be novel research opportunities studying the effects on inequality from the tremendous fixed costs and increasing returns-to-scale for start-of-the-art AI systems.[2,3]

Thank you for your time and consideration,

Adam Baybutt

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References:

1) Mullainathan & Obermeyer (2020). https://www.nber.org/papers/w26168.pdf
2) Agrawal, Gans, & Goldfarb (2019). https://papers.nber.org/books/agra-1
3) OpenAI (2018). https://openai.com/blog/ai-and-compute/

Curriculum Vitae

Adam Baybutt
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EDUCATION

2018 – Present	Ph.D., Economics: Econometrics and Finance, UCLA
2018 – 2020	M.A., Economics, UCLA
2016 – 2017	Advanced Study Program (non-degree), Econometrics, Massachusetts Institute of Technology
2011 – 2012	M.S., Biomedical Engineering – Neuroengineering, USC
2011	Semester Abroad (non-degree), Bioengineering, National University of Singapore
2008 – 2012	B.S., Biomedical Engineering, minor: Entrepreneurship, USC

RESEARCH INTERESTS

AI and Machine Learning; Cryptocurrencies and Monetary Policy; Quantitative Finance; Empirical Macro

EMPLOYMENT

2019 – Research Fellow, Y Combinator Research, San Francisco, CA
- Collaborated with Sam Altman to generate research proposals studying the monetary policy of cryptocurrencies.
- Consulted on a randomized controlled trial (RCT) of US-based basic income.

2016 – 2018 – Research Associate, J-PAL – NA, Department of Economics, MIT, Cambridge, MA
- Analyzed healthcare delivery RCTs led by Professors Kate Baicker and Amy Finkelstein.
  - RA on NEJM paper: https://www.nejm.org/doi/full/10.1056/NEJMsa1906848
- Built predictive models of healthcare and economic outcomes in Medicare data using machine learning algorithms with Professors Ziad Obermeyer and Sendhil Mullainathan.
  - RA on working paper: https://www.nber.org/papers/w26168.pdf

2015 – 2016 – Biostatistician, Cepheid, Sunnyvale, CA

2014 – 2015 – Program Manager, Cepheid, Sunnyvale, CA
Associate Project Manager – Feb 2014 – March 2015

TEACHING

2019 – Present – Teaching Assistant, UCLA
- ECON 103 – Introduction to Econometrics
- ECON 425 – Machine Learning
- ECON 101 - Intermediate Microeconomics

2018 - Present – Course Leader, Emeritus Institute of Management
- Python for Managers, Columbia Business School (x2)
- Blockchain to Business: Beyond the Hype, Columbia Business School
- Applied Machine Learning, Columbia University (x3)

REFEREEING

Review of Economic Dynamics

KEY COURSEWORK

UCLA	2-year metrics sequence: non-parametric series estimation and high-dimensional statistics; Empirical Macroeconomics; Empirical Asset Pricing; Introduction to Financial Economics
Harvard	Audited Sendhil Mullainathan's "The Econometrics of Machine Learning" while an RA.
MIT	An A in both 1st year econometrics courses as well as auditing Angrist's 2nd year course.