ADAM BAYBUTT

1.614.301.4792 | adambaybutt@protonmail.com

adambaybutt.org | github.com/adambaybutt | linkedin.com/in/adambaybutt/

RELEVANT SKILLS

Knowledge: Statistics, Econometrics, Machine Learning, Deep Learning, Time Series Forecasting, Quantitative Finance, Optimization, Data Pipelines, Data Analytics & Visualization, Software Development, Version Control.
Programming: Python (Pandas, Numpy, Scikit-Learn, Keras, Tensorflow, Statsmodels), SQL, Linux, Git, R, Matlab.

EDUCATION

PhD & MA, Economics, University of California, Los Angeles (UCLA) — 2018 - 2024
Advanced Study Program, Massachusetts Institute of Technology (MIT) — 2016 - 2017
BS & MS, Biomedical Engineering, University of Southern California (USC) — 2008 - 2012
Semester Abroad in Bioengineering, National University of Singapore — 2011

PROFESSIONAL EXPERIENCE

Quantitative Researcher, Automa Capital — April 2024 - Present
· Solving problems in financial forecasting, portfolio optimization, and risk management; focused on deep learning.

Quantitative Researcher, Krypton Labs — June 2022 - November 2022
· Quantified nuanced trading costs in decentralized exchanges (DEXs), utilizing trade-level data, Python, and SQL.
· Built simulations of profitable market-making strategies in Krypton's novel DEX mechanism with lower retail fees.

Investment Strategy PhD Intern, Dimensional Fund Advisors — June 2021 - August 2021
· Built machine learning-based (e.g. RFs, neural nets, etc.) investment strategies in monthly US equities.
· Presented to executives backtest results of out-of-sample Sharpe gains over traditional asset pricing models.

Research Fellow, Y Combinator Research — June 2019 - August 2019
· Collaborated with Sam Altman to formulate directions for my research and crypto startups, e.g. Worldcoin.
· Consulted on the statistical analysis of a randomized controlled trial (RCT) of a USA-based basic income policy.

Research Associate, MIT — April 2016 - July 2018
· Built machine learning models (GBDT) in Medicare data. RA for QJE by Obermeyer and Mullainathan.
· Provided data analysis for RCTs led by Kate Baicker (JAMA) and Amy Finkelstein (NEJM).

Biostatistician, Cepheid — February 2015 - March 2016
· Designed and analyzed molecular diagnostic clinical trials for regulatory registration, sign-off on FDA approval.

Program Manager, Cepheid — February 2014 - February 2015
· Managed product development teams (per project: ~dozen people, 3-5 year timelines, and $5-40MM budgets).
· Launched Xpert BCR-ABL Ultra with CE-IVD registration for European markets, which generated millions in ARR.

RESEARCH

Empirical Crypto Asset Pricing using Factor Models with High-Dimensional Asset Characteristics

Doubly-Robust Inference for Conditional Average Treatment Effects with High-Dimensional Controls, with Manu Navjeevan, *Journal of Econometrics, R&R*

Competing Fiat Moneys and Nominal Rigidities, with Basil Halperin and J. Zachary Mazlish

---

TEACHING

Teaching Fellow, UCLA — 2019-2024
PhD: Probability and Stats for Econometrics; *Masters*: Machine Learning (x2), Forecasting and Portfolio Design;
Undergrad: Financial Engineering, Intro Econometrics (x6), Investments, Probability and Statistics for Economists.

Course Leader, Emeritus Institute of Management for Columbia University — 2018-2021
Applied Artificial Intelligence, Applied Machine Learning (x4), Python for Data Science (x6), Blockchain to Business.