Tristan Misko

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Mission

Bring mathematics to life with an engineering mindset and passion for collaboration to build and improve systems that solve meaningful problems for users. .

Skills & Tools

Expert: R, Python, Java, Web APIs Mathematical Problem Solving, Data analysis
Intermediate: JavaScript, HTML, CSS, JSON, SQL, Machine Learning, MATLAB, git/GitHub
Familiar: Spring, Ruby, TCP/IP, Mathematical, Full Stack Development Cycle, Big Data
Domain Knowledge: Extensive domain knowledge in economics, finance, and political science

Education

University of California, Berkeley (Aug 2018 - May 2022)

Bachelor of Arts (BA) in Applied Mathematics, Statistics Concentration

Relevant courses: Interpretation of Computer Programs (CS 61A), Introduction to Machine Learning (CS 189), Programming for Mathematical Applications (MATH 124), Linear Algebra (MATH 110), Abstract Algebra (MATH 113)

Bachelor of Arts (BA) in Economics, Honors

Relevant courses: Econometric Analysis (ECON 141), Applied Econometrics and Public Policy (ECON C142), Topics in Economic Research (ECON 191), Senior Honors Thesis (ECON 195B)

North Penn High School - Diploma (Aug 2015 - Jun 2018)

Relevant Experience

Full Stack Developer - Time Tracking App

Personal Project (August 2022 - Present)

- Designed and implemented a full stack web application to visualize retrospective calendaring data
- Used HTML/CSS/Javascript on front end and Spring/Java on backend

Private Tutor - Computer Science 70: Discrete Mathematics and Probability Theory

Self-Employed in Berkeley, CA 94704 (Jun 2022 - Aug 2022)

- Mentored a student to build strong conceptual understanding and hone problem solving skills
- Clearly and effectively communicated about complex and subtle topics

Project Manager - Sustainable Shared Prosperity Index

Stipended - Institute for Research on Labor and Employment (IRLE) at UC Berkeley (Aug 2021 - Present)

- Led 12 undergraduates in data collection, cleaning, feature design, and analysis using Python, R, and Google Sheets, expanding country coverage by 36% in the Sustainability Pillar
- Implemented data collection APIs for ~30 SSPI indicators and trained apprentices to use APIs to streamline the data collection process, drastically improving data traceability and cutting data entry time by over 90%

Author - "Something in the Air: How Policy Affects Air Quality" - *Working Paper*

Senior Honors Thesis (ECON H195B) under Prof. Clair Brown, UC Berkeley (Jan 2022 - May 2022)

- Scraped HTML and JSON data from the ECOLEX database using Python to generate a database of national policies relating to air quality
- Conducted a time series regression analysis of the relationship between air quality policy data and outcomes in R to assess which kinds of policies are most effective at reducing air pollution

Author - "Do Homeowners Care About Air Quality? Evidence from Wildfire Smoke" - *Working Paper*

Original Research Paper (ECON 191) under Prof. David Card and Silvia Fregoni, UC Berkeley (Aug 2021 - Dec 2021)

- Designed and implemented regression analysis in R to estimate effects of air quality shocks on housing price, matching geospatial wildfire smoke data to housing price data at the US county-month level
- Used algorithmic optimization techniques to efficiently analyze 28,000,000 observation geospatial smoke dataset