# Timothy Majidzadeh

614-260-2764 | timothym98@gmail.com | github.com/timothy-majidzadeh | linkedin.com/in/timothy-majidzadeh

# Data Scientist | Applied Economics and Strategy

Experienced Data Scientist with strong background in causal inference and strategic analytics. Delivered data-driven insights for 20+ cases, valued \$1M to \$1B. Collaborated across legal, technical, and business teams to transform complex datasets into actionable recommendations under tight deadlines. Skilled in Python, SQL, Databricks, A/B tests and experimentation. Proven ability to manage junior staff, own end-to-end workflows, and communicate findings to diverse stakeholders. Master's in Information & Data Science from UC Berkeley.

# Skills

- Causal Inference: A/B tests, Natural Experiments, Difference-in-Difference, Synthetic Control, Propensity Scores
- Data & Tools: SQL, Python, Pandas, PySpark, R, Stata, Databricks, Microsoft Azure, Tableau, Power BI
- Machine Learning: Tensorflow, Keras, Neural Networks, Random Forest, Computer Vision, Generative AI
- Business Skills: Project Management, Cross-Functional Collaboration, Stakeholder Communication, Data Storytelling

# **Experience**

#### **Charles River Associates**

# **Consulting Associate**

Analyst; Associate

September 2023 – January 2025 August 2020 – September 2023

Delivered analytical solutions and data products in for high-value litigation and M&A strategy. Built scalable data pipelines, owned experimental design, and provided insights that influenced client strategy and decision-making. Acted as a key liaison between technical and non-technical stakeholders, ensuring clarity, rigor, and actionability of findings. Ensured analytical robustness under rigorous peer review by external data science teams.

- Built and maintained data pipelines using SQL, PySpark, Pandas, Databricks, and Azure; analyzed large-scale transactional datasets (e.g., Google Play Store).
- Developed causal inference models (such as Difference-in-Difference, Synthetic Control, A/B Tests) to estimate treatment effects and inform multi-million-dollar case outcomes. Delivered data narratives and visualizations using tools such as Tableau and Altair to senior economists, attorneys, and client leadership.
- Designed and validated analyses to withstand scrutiny from external data scientists, ensuring rigor and defensibility.
- Managed teams of 2–5 junior staff, overseeing execution of technical workflows and ensuring high-quality deliverables.
- Participated in 5-week formal management training covering influence, feedback, and stakeholder alignment.

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# **Sales Analytics Intern**

June 2018 - August 2018

- Cleaned and analyzed company sales data using tools such as R, SQL, KNIME, and Excel to find new insights.
- Communicated these insights to the sales team with PowerBI dashboards and written/oral reports.
- Implemented automated systems to standardize data inputs from international company franchises.
- Delivered data-driven report on drivers of sales office revenue.

#### Education

# UC Berkeley, Master of Information and Data Science

May 2025

**Courses**: Experiments & Causal Inference/AB Testing, Research Design and Data Applications, Statistics, Generative AI, Applied Machine Learning, Data Visualization, Data Engineering, Ethics of Data.

UC Berkeley, Bachelor of Arts - Economics, Minor in Data Science

May 2020

# **Projects**

# Investigation of Alleged 'Algorithmic Collusion' in Rental Housing | UC Berkeley

Website: <a href="https://uc-berkeley-i-school.github.io/realpage-rent-impact/">https://uc-berkeley-i-school.github.io/realpage-rent-impact/</a>.

- Using methods such as propensity score matching, feed-forward neural networks, random forests, ARIMA forecasting and synthetic control regression, tested whether algorithmic pricing inflates rent.
- Leading a team of 5, identified a \$200/month average rent increase for 800 sqft apartments, but did not identify collusion as the causal source. Delivered a research report and an interactive website.

## In Re Google Play Store Antitrust Litigation | Charles River Associates | Python, SQL, Excel

- Utilized tools such as SQL, PySpark, and Databricks to process cloud-scale Google Play Store data at issue in class-action lawsuits between Google, Play Store users, Play Store developers, and U.S. states.
- Identified Play Store users and developers affected by allegations in litigation. Quantified damages leading to a settlement of \$700 million.

# Textbook Publishers v. Shopify, Inc. | Charles River Associates | Python, STATA, Excel

- Analyzed data from over 100 Shopify storefronts to identify sales of works alleged by Textbook Publishers to infringe copyrights.
- Created ML classification model to identify the 3,400+ allegedly infringed IPs among Shopify vendors' sales. Randomly sampled to estimate Type I/II error rates and adjust damages.

## Teradata Corporation v. SAP SE | Charles River Associates | STATA, R, Excel

- Developed data-driven economic models including a differences-in-differences analysis, an augmented synthetic control analysis, and others to quantify damages owed in litigation.
- Reduced client damages from 9 figures to \$0 by identifying flaws in opponent's causal inference assumptions and data analysis.

# Immigration Survey Research Project | UC Berkeley | Qualtrics, Python, A/B Testing

- Conducted a randomized experiment, in A/B test format, to test whether survey responders' selfreported political opinions change if the survey format is changed to resemble a set of Facebook posts.
- Designed survey in Qualtrics and used Census data to set quotas ensuring a representative stratified random sample of the U.S. population. Found differing treatment effects based on political party.

# Prototype RAG Model Deployment | UC Berkeley | Gen AI, HuggingFace, LangChain, Mistral, Cohere

- Developed RAG Gen AI models relying on Mistral and Cohere as LLMs, Qdrant vector stores, and LangChain as a pipeline. Tuned on different LLMs, temperatures, chunk sizes/overlaps, and prompts.
- Final models achieved  $\sim$ 95% context faithfulness in final models, as well as  $\sim$ 60% ROUGE-1 improvement over original models and  $\sim$ 10% cosine similarity improvement over original models.

#### Soccer Match Computer Vision Detection | UC Berkeley | YOLO, Tensorflow, Keras

- Trained You Only Look Once ("YOLO") CNN machine learning models to identify the location of soccer players and the ball in images of a soccer match. Extracted and processed ~1 TB of game images.
- Optimized by testing five versions of YOLO, image processing methods, and tuned hyperparameters. Achieved precision/recall of 0.868/0.771, improved from 0.586/0.264 in first model.

**GitHub Portfolio:** <a href="https://github.com/timothy-majidzadeh">https://github.com/timothy-majidzadeh</a>