Shayan Abbasi

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Profile

Econometrist and Data Scientist with a **PhD in Quantitative Marketing** from McMaster University and a Master of Financial Economics from the **Barcelona School of Economics**. **Three years of professional experience in data analysis** within the **Finance and Marketing** sectors, specializing in **causal inference, text classification**, and data-driven strategy. Researcher focused on value appropriation, privacy policy, and the **adoption of generative AI** within the mobile app ecosystem. Specialized in advanced econometrics, experimental design, and large-scale data processing to generate actionable insights.

Cloud expertise in **GCP** (Compute Engine VMs, Vertex AI), **Agentic AI** (LangGraph, AutoGen) and extensive expertise in applying **Causal Inference** designs and methods (hypothesis testing, difference-in-differences, matching, RDD, IV, decision trees).

Education

Ph.D. Quantitative Marketing   Aug 2022 - Mar 2026
McMaster University   Hamilton, Canada

Three essays in mobile app ecosystem: Value appropriation and business models, platform owner entry and complementors' response, and conversational assistant (Gen AI) integration in mobile apps.

- Methods: DiD, Panel Data Regression, Zero-Shot Classification, Fine-tuned LLM for classification through GCP's Vertex AI custom model.

Advisor: <u>Dr. Manish Kraker</u>

Master of Applied Economics   Sep 2021 - Jul 2022
Autonomous University of Barcelona   Barcelona, Spain

Master Thesis: Market Share Analysis in U.S. Markets.

Master of Financial Economics   Sep 2020 - Jul 2021
Barcelona School of Economics   Barcelona, Spain

Master Thesis: The financial consequences of corporate misconduct: A financial event study analysis.

Bachelor of Economics   Sep 2016 - Jul 2020
University of Tehran   Tehran, Iran
- Minor: Computer Science

Experience

Sessional Instructor   Sep 2025 - Jan 2026
DeGroote School of Business, McMaster University   Hamilton, Canada

- Designed and delivered the full curriculum for **Introduction to Marketing**, including tutorials and assessments for undergraduate students Focused on **scenario-based** learning.

Data Scientist   Apr 2025 - Dec 2025
Shannon School of Business   Sydney, NS

- Executed **sentence classification** experiments using **Zero-Shot classification** (Bart, ModernBERT) and Gemini models with batching and sample packing.
- Architected data labeling using **semantic similarity** workflows to identify sentences aligned with abstract constructs, **improving model recall**.
- Validated and **curated high-fidelity** datasets on **GCP (Vertex AI)**, streamlining model training for **productionproduction-grade NLP** applications.

Data Scientist   Jan 2024 - Jun 2025
United For Iran   San Francisco, USA

- Developed **dynamic geospatial dashboards** using Plotly, GeoPandas, and NetworkX for high-resolution spatial analysis of agent activity.
- Implemented **anomaly detection** and behavioral clustering (K-Means, GMM), identifying user behavior.
- Synthesized complex spatial and behavioral data into actionable technical reports for **cross-functional stakeholders**, translating anomaly detection findings into resource optimization strategies.
- Spearheaded reports on asset-level trends and resource optimization utilizing **infrastructure diagnostics**.

Data Research Assistant   Dec 2024 - Jan 2025
McMaster University   Hamilton, Canada
- Engineered **fuzzy matching workflow** for disparate datasets, streamlining data for longitudinal research.

Quant Developer   Oct 2020 - Dec 2020
Stealth Startup   Tehran, Iran
- Automated large-scale **data ingestion** and cleaning for panel datasets to ensure data integrity.
- Developed **risk models** utilizing Sharpe ratio, VaR, and Drawdown metrics.
- Implemented arbitrage strategies, Monte Carlo backtesting, and grid strategy for **high frequency trading** models.

Skills

Econometrics: Causal Inference (Hypothesis Testing, Diff-in-Diff, Matching, RDD, IV, Decision Trees), Statistical modeling, A/B Testing.

AI/NLP: Prompt Engineering (RAG, Variable injection, Batching, sample packing, etc.), Text Mining, Semantic Similarity, Agentic AI (LangGraph, AutoGen, Pydantic).

Machine Learning: Scikit-learn, TensorFlow, XGBoost, Decision Trees, LLM-based classification.

Programming Languages/Software: Python (nltk, Pandas, NumPy, SciPy), R (Data.table, Tidyverse), SQL, Stata.

Cloud/DevOps: GCP (Compute Engine VM, Vertex AI), Git, Docker, PySpark.

Web/Extraction: Web Scraping (Selenium, BeautifulSoup, Proxy Management), Regex.

Conferences And Publications

Theory and Practice of Marketing (TPM) Conference, Austin, TX - Presented 2024

DeGroote Marketing Brown Bag Lunch (BBL) Seminar, Hamilton, ON - Presented 2024.

AMS Conference and Doctoral Symposium, Montreal, QC - Attendance 2025.

ET Symposium for Canadian Marketing Strategy, University of Guelph, ON - Attendance 2025.

Canadian Conference for Business Research Students (CCBRS): AI Horizons: Shaping the Future of Business Research Collaboration., Hamilton, ON - Presented poster 2025

Honors and Awards

DeGroote Distinguished Student Award; $7,500 (2022–2025).

Ph.D. Office (DSB) Scholarship, McMaster University; $45,000 (2022–2025).

DeGroote Supervisor Student Support; $10,300 (2022–2025).

University of Tehran; Hami Scholorship for Distinguished Students (2019-2020).