

Shayan Abbasi

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PROFILE

A seasoned Econometrician and Gen AI Strategist with 3 years of hands-on experience in Data Analysis in Finance and Marketing, holding an **PhD in Quantitative Marketing** from McMaster University. Proven track record in Causal Inference, Marketing Strategy and production-grade AI Automation solutions. Specialized in digital transformation and Gen AI Channel disruption, transforming data into actionable insights, and Statistical Experiment Design.

Cloud expertise in **AWS** (Lambda, EC2, SageMaker, Aurora, Airflow, Elasticsearch), and **GCP** (Vertex AI, Kubernetes, VM instances).

EXPERIENCE

Quantitative Marketing Researcher McMaster University	Dec 2022 – Dec 2024 Hamilton, Canada
<ul style="list-style-type: none">Developed an autonomous trading agent utilizing Hierarchical Reinforcement Learning and FastDQN; implemented advanced risk-mitigation strategies that outperformed baseline benchmarks by 185%.Engineered a Multi-Armed Bandit (MAB) framework for dynamic resource allocation using Meta's PEARL library, improving convergence rates by 13% compared to conventional epsilon-greedy strategies.Published research and instructed "Statistical Data Analysis," mentoring graduate students on applying Bayesian Inference and Python-based econometric modeling to high-frequency datasets.	
Sessional Instructor DeGroote School of Business, McMaster University	Sep 2025 – Jan 2026 Hamilton, Canada
<ul style="list-style-type: none">Designed and delivered curriculum for "Introduction to Marketing" and "Statistical Data Analysis," focusing on causal inference and the application of ML in consumer behavior modeling.	
Data Scientist Shannon School of Business (FinTech Project)	April 2022 – Dec 2022 Remote
<ul style="list-style-type: none">Architected scalable ensemble tree models for customer segmentation using PySpark, processing 4M+ records to optimize targeting strategies, contributing to a 112% growth in Monthly Active Users (MAU).Led the development of an end-to-end ETL pipeline using Django and ORM, integrating 50+ financial KPIs to drive real-time executive decision-making and strategic growth forecasting.Designed Fraud Detection systems for OTLP wallet transactions using anomaly detection, while implementing A/B testing frameworks that increased conversion rates by 35%.	
Quant Developer Stealth Quant Team (Logistics & Retail)	Oct 2020 – Dec 2021 Tehran, Iran
<ul style="list-style-type: none">Co-engineered an automated inventory reordering system for 15 hypermarkets, utilizing stochastic optimization to manage 8,000+ SKUs and 200+ suppliers, significantly reducing stock-outs.Implemented indoor location tracking and spatial data models for a "Low-Cost Amazon Go" prototype in collaboration with Rocket Internet.Optimized complex SQL queries and data warehousing structures, reducing latency for financial reporting and operations teams by 40%.	
Data Scientist United For Iran	Jan 2024 – June 2025 Remote
<ul style="list-style-type: none">Applied geospatial analysis and NLP to visualize and identify patterns in large-scale user reports, utilizing Python and R to develop risk-assessment dashboards.Conducted fuzzy matching and data harmonization on disparate, noisy datasets to clean and prepare data for longitudinal research studies.	

EDUCATION

Ph.D. in Business Administration - Quantitative Marketing McMaster University Thesis: mobile application ecosystem emphasizing GenAI privacy, Accessibility and Pervasiveness in Decision Making. - Methods: DiD, Panel Data Regression, Zero-Shot Classification with Bart and ModernBERT, Fine-tuned LLM for classification, GCP custom model. Advisor: <u>Manish Kraker</u>	Aug 2022 - March 2026 Hamilton, Canada
Master of Applied Economics Autonomous University of Barcelona Master Thesis: Market Share Analysis in U.S. Markets.	Sep 2021 - Jul 2022 Barcelona, Spain
Master of Financial Economics Barcelona School of Economics Master Thesis: The financial consequences of corporate misconduct: A financial event study analysis.	Sep 2020 - Jul 2021 Barcelona, Spain
Bachelor of Economics University of Tehran - Graduated with distinction - Minor: Computer Science	Sep 2016 - Jul 2020 Tehran, Iran

SKILLS

Core Expertise: Data Science, high-frequency trading, Text Mining, Stochastic Models and Optimization (Reinforcement Learning), Machine Learning for Finance, Agentic AI, Statistical Testing, Natural Language Processing (NLP), Zero-Shot Learning, Predictive Modeling, Language Models (LLMs)

Programming and Data Engineering: Python, R, SQL (MySQL, PostgreSQL), MongoDB, Vector Databases

Cloud Platforms: GCP (Kubernetes, Vertex AI), AWS Certified (Lambda, EC2, SageMaker, Airflow, Elasticsearch)

Machine Learning: Scikit-learn, TensorFlow, PyTorch, Hugging Face, LanGraph

Data Tools/ DevOps: MLflow, Docker, Kubernetes, Git, CI/CD, GraphQL, Bash

Data Processing Libraries: Pandas, NumPy, SciPy, Spark, Data.table, Tidyverse

Web and Automation: REST APIs, Streamlit, Shiny App, Selenium

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

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

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

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

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