ABBAS MEGHANI

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SUMMARY

Senior Data Scientist with an MSc in Data Science, a published ML research record (Journal of Economic Surveys, 2023), and 5+ years engineering production data and backend systems that power ML fraud detection at enterprise scale. Builds and ships containerized model-serving and retrieval systems in Python/FastAPI, with measured latency and CI.

SKILLS

ML & Data: Python (pandas, NumPy, scikit-learn, Matplotlib), R, SQL / T-SQL, ElasticSearch
LLM & GenAI: RAG pipelines, vector search (pgvector), embeddings
Frameworks: FastAPI, .NET Core, ASP.NET Core, REST APIs, GitHub Actions CI/CD
Infrastructure: Docker, PostgreSQL, SQLAlchemy
Practices: ML training & evaluation, feature engineering, pipeline optimization, unit testing

PUBLICATIONS & RESEARCH

- "Thirty Years of Academic Finance" — Journal of Economic Surveys (2023). ML research (R, Python), QUANTACT lab. Applied text mining and quantitative ML to 30 years of finance literature.
- Conference papers at IEEE: Electronics and Informatics (2018), Intelligent Sustainable Systems (2017), Communication and Electronics Systems (2017).

WORK EXPERIENCE

Sr Data Scientist — ML & Data Systems *Shift-Technology | Apr 2024 – Present*

- Optimized ML fraud detection pipelines, reducing data extraction latency by 20% across all deployed model environments.
- Integrated ElasticSearch entity resolution into the ML inference pipeline, improving model input data quality at query time.

Data Scientist — ML & Data Systems *Shift-Technology | Feb 2022 – Apr 2024*

- Built a factory-based feature preparation library for ML microservices, onboarding 15+ enterprise clients to ML-powered fraud detection.
- Refactored ML model feature pipeline, saving thousands of compute hours and achieving a 5% company-wide efficiency improvement.

Software Engineer — Backend *DocuFire | June 2021 – Feb 2022*

- Achieved 15% throughput increase via async parallel processing; migrated legacy data access layer to a REST API.

Research Assistant — ML Research *HEC Montreal (Part Time) | May 2021 – Oct 2023*

- Built a Python ML model simulating sports game outcomes, integrated into a live web app under the QUANTACT lab research program.

EDUCATION

Master of Science — Data Science *HEC Montreal, University of Montreal | Aug 2019 – May 2021*

GPA: 3.6/4.3 | Machine Learning, Statistical Learning, Data Mining, Optimization

Bachelor of Engineering — Computer Engineering *RCOE, University of Mumbai | July 2014 – June 2018*

GPA: 8.4/10 (Top 5%)

PROJECTS

ml-serving-api — containerized model & retrieval serving *Python, FastAPI, Docker, Postgres | github.com/abbasmg/ml-serving-api*

FastAPI service serving a scikit-learn model with per-request latency logging (measured p95 2.9 ms), Postgres persistence, pytest + GitHub Actions CI, and pgvector semantic search (p95 32.6 ms).