Aviv Gelfand

Summary

- Dedicated to long-term growth in a cutting-edge company with a positive atmosphere; available for 80%-100% time role as a Data Scientist / ML or AI Researcher / Engineer / SW Dev.
- 1st year MSc candidate in Data Science (HUJI); Thesis: Dimensionality reduction of Deep Learning problem space through statistical methods. BSc in Statistics and Data Science (HUJI; GPA 89)
- Demonstrated success in AI and software development through academic/private projects and roles, with a track record of implementing machine learning models to solve complex problems requiring strong collaboration and rapid self-learning skills, consistently delivering efficient and accurate models.

Experience

NLP Data Scientist / Research Assistant

Oct 2023 - May 2024

The Hebrew University of Jerusalem

- Successfully executed a Supervised-Fine-Tuning training of large language models to classify defendant arguments in trials for a broader statistical legal research project.
- Drove strategic alignment by delivering situational analyses and action plans to US-based stakeholders, effectively prioritizing objectives \(\mathbb{L}\) and focusing efforts to meet deadlines.
- Dealt with significant imbalance using embedded cluster stratified sampling methods.
- o Acquired all relevant knowledge in PyTorch and LLMs through fully independent learning, unguided.
- Presented findings at a prominent statistics and data science conference in May 2024.

Statistics & Machine Learning Teaching Assistant

Oct 2022 - Sept 2023

Upscale Analytics

- Built and taught dozens of machine-learning projects in the company's course, with constant feedback from a Senior Data Scientist (and head lecturer), Michael Winer.
- Instructed data analysts through their first steps in Statistical Inference and Classic Machine learning linear and logistic regressions, ensemble learners (random forests & XGBoost), clustering with K-means, and DBSCAN.
- Advanced from teaching assistant to instructor, then to a partner role. 3 successful semesters of weekly TA sessions with a significant presence of students.

Research & Development Assistant

Apr 2022 - Mar 2023

The Hebrew University of Jerusalem

- Self-taught and programmed Smart Contracts with a C++-based programming language; developed simulations interface using react.js.
- Designed and analyzed online surveys; conducted literature and academic peer reviews. Web-scraped data monthly.

Data Analyst & Research Team Leader

Dec 2018 - Dec 2020

Israel Defense Forces

- Conducted economic research, assessments, and analytics for high-ranked decision-makers.
- Led a joint project with a programming team for an economics dashboard app for a Major General (Aluf).
- Created, updated, and maintained databases of macro-economical data via Microsoft Excel.

Education

The Hebrew University of Jerusalem

Oct 2023 - July 2026

MSc in Statistics

• Thesis on Dimensionality Reduction of Deep Learning (LLMs focused), guided by Prof. Ariel Jaffe.

BSc in Statistics & Data Science

o GPA: 89; Finished 33% of the required courses for master's degree while working in several roles.

Technologies

Scripting Languages and tools: Python, Java, Solidity (C++ based), R, SQL, JS

Programming Libraries: Pandas, PyTorch, Transformers, SKlearn, LLM's SDK (openai, groq, etc), Selenium, Beautiful soup

GenAI: Prompt engineering (COT, etc), Crusur, Claude, ChatGPT, Perplexity, Langtalks fan

EDA: Basic and complex Visualizations, Advanced Statistical Inference

ETL: Cleaning, Encoding / Embedding, Imputing

ML: Efficient Sampling, Feature Engineering, Parameters Optimization, Evaluation Metrics

NLP: Fine-Tuning open source LLMs, LORA, PEFT, text cleaning techniques with Regex and NLTK

CI/CD: GIT, Linux, SLURM Cluster system, GitHub workflows, shell scripts

Big Data Frameworks: Big Query, Data-Bricks, Apache Spark