

# Aviv Gelfand

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## Summary

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- 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

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### 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.
- Dealt with significant imbalance using embedded cluster stratified sampling methods.
- 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

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### 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.

### The Hebrew University of Jerusalem

Oct 2021 – Aug 2024

*BSc in Statistics & Data Science*

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

## Technologies

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**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