

# 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*

- Fine-tuned (SFT) Large Language models for a US-Israeli statistical legal research team, classified arguments in trial records.
- Applied LORA, PEFT, text cleaning, and statistical methods.
- Dealt with the significant imbalance and noisy labels and features, using embedded cluster stratified sampling methods and an iterative active learning approach.
- Corrected errors in the labeled data.
- Reached over .90 accuracy and over .80 F1 scores in most target labels, over 20% improvement from the initial benchmark.
- Utilized the university's Cluster resources (with Linux) to fine-tune open-source foundational models with PyTorch Lightning.
- Acquired all relevant knowledge in PyTorch and LLMs with nothing but a laptop and the Internet.
- Presented my work at the annual Israel Statistics and Data Science Association 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**

*Dec 2021 – Aug 2024*

*BSc in Statistics & Data Science*

- GPA: 89
- Coursework: Human Language from a Computational Perspective (NLP), Linear Algebra for Statisticians, Statistical Inference and Its Applications, Modern Statistical Data Analysis, Regression and Statistical Models, Intro to Machine Learning, Big Data Mining, Data Structures and Algorithms

### **The Hebrew University of Jerusalem**

*Sept 2023 – July 2026*

*MSc in Statistics*

- Coursework: Signal Processing, Geometry of Data

## Technologies

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**Programming Languages & Tools:** Python, Pandas, NumPy, Matplotlib, Plotly, Scikit-Learn, TensorFlow, Keras, PyTorch, Git

**Machine Learning & Data Science:** Machine Learning, Deep Learning, Natural Language Processing (NLP), Large Language Models (LLM), Transformers, Statistical Inference, Predictive Modeling, Data Analytics, Data Cleaning, Data Wrangling, EDA, Big Data Analytics

**Other Skills:** Problem Solving, Analytical Skills, Communication, Teamwork, Self Learning, Independent Thinking