Ben Finkelshtein

ben.finkelshtein@cs.ox.ac.uk ● +44-7562-416-497 ● LinkedIn ● Website ● Google Scholar

Education

University of Oxford (Expected graduation August 2026) — January 2023 - Present
Doctor of Philosophy (PhD) in Computer Science — Oxford, United Kingdom
- Titled "Efficient and Expressive Neural Networks for Learning on Graphs"
- Supervised by DeepMind Chair of AI Prof. Michael M. Bronstein and Prof. İsmail İlkan Ceylan
- Co-authored Towards Data Science's Graph & Geometric ML in 2024 and Cooperative Graph Neural Networks
- Awarded the **Clarendon Scholarship of over £200,000** towards tuition fees and living costs (< **1% acceptance**)

Technion - Israel Institute of Technology — November 2019 - June 2022
Master of Science in Computer Science — Haifa, Israel
- Supervised by Prof. Alexander Bronstein and Prof. Chaim Baskin
- **GPA: 99.1; Graduated with highest honors (summa cum lauda, top 1%)**

Technion - Israel Institute of Technology — November 2013 - July 2017
Bachelor of Science in Electrical Engineering and Bachelor of Science in Physics — Haifa, Israel
- Completed two separate B.Sc as a Fellow in the IDF's competitive Psagot program (< **1% acceptance**)
- **GPA: 92.1; Graduated with great honors (magna cum lauda, top 3%)**

Selected Publications

First @ Actions Speak Louder than Prompts: A Large-Scale Study of **LLMs** for Graph Inference — ICLR 2026
A principled analysis of LLM capabilities and limitations in processing graph information

Senior @ Of Graphs and Tables: Zero-Shot Node Classification with **Tabular Foundation Models** — Under review
We reformulate node classification as a tabular problem and show tabular foundation models outperform graph ones

First @ Equivariance Everywhere All At Once: A Recipe for **Graph Foundation Models** — NeurIPS 2025
We derive the first graph foundation model that is provably universal and achieves SOTA zero-shot performance

Co-First @ Position: Graph Learning Will Lose Relevance Due To Poor Benchmarks — ICML 2025
We call for a paradigm shift toward meaningful benchmarks, rigorous evaluation, & more domain expert involvement

First @ Learning on Large Graphs using Intersecting Communities — NeurIPS 2024
A fundamentally different pipeline for learning on very large non-sparse graphs using intersecting communities

First @ Cooperative Graph Neural Networks — ICML 2024
A new graph signal processing paradigm in which each node can choose a different communication strategy

Professional Experience

Google Research; Student Researcher — September 2025 – Present
- Devising the first **Graph Foundation Model for production** at Google with Bryan Perozzi and Michael Galkin
- Enabling **node-, link-, and graph-level tasks** across diverse domains, graph structures, and feature modalities.

Microsoft Research HQ; Student Researcher — June 2025 – September 2025
- Researched **LLM-based graph reasoning**, via prompting, tool-use, and code-generation paradigms on graph data
- *Actions Speak Louder than Prompts: A Large-Scale Study of LLMs for Graph Inference* accepted to ICLR 2026

eBay; Applied Researcher — June 2022 – January 2023
- **Engineered LLMs** to match queries with the most relevant landing pages for search engine optimization
- Developed a keyword extraction technique, combined it with **GPT3, and subsequently fine-tuned the process**
- Achieved a 30% increase in landing page click-through rates (CTR) within the first three months of implementation

SKF Group - AI Center of Excellence; Data Scientist — August 2020 – May 2021
- Designed, customized, and implemented end-to-end machine learning pipelines, from ideation to production

- Led research in event prediction, **anomaly detection, and time series forecasting** to aid machinery fault diagnosis
- Designed an event-based evaluation metric that improved the company's anomaly detection from 78% to 90%

Rafael Advanced Defense Systems; Algorithm Developer   October 2017 – July 2020
- Specialized military service assignment (**1 recruit per year**)
- **Created a neural network which predicts n-body problem solutions** for classified company use
- Engineered generative models to predict molecular dynamics pathways, utilizing physical simulations
- Created new **generative models to analyze stable & transient protein folding conformations**

Awards

G-Research Grant - **£2000**	September 2024
Graduated Top 1% from a Master of Science in Computer Science - £500	July 2023
Clarendon Scholarship - over **£200,000**	July 2022
M.Sc Study Scholarship - over **£45,000**	December 2019
Graduated Top 3% from a Bachelors of Science in Electrical - £100	July 2018
Graduated Top 3% from a Bachelors of Science in Physics - £100	July 2018

Selected Talks

BGU University @ **Israel**: "A Recipe for Graph Foundation Models"	December 2025
Learning On Graphs conference @ **USA**: "A Recipe for Graph Foundation Models"	December 2025
Microsoft Research Headquarters @ **USA**: "LLM for Graph Inference"	September 2025
ISTA University @ **Austria**: "Learning on Large Graphs"	November 2024
Technion University @ **Israel**: "Learning on Large Graphs"	September 2024
RWTH University @ **Germany**: "Cooperative Graph Neural Networks"	July 2024
Learning On Graphs conference @ **United Kingdom**: "Cooperative Graph Neural Networks"	December 2023

Teaching Experience

University of Oxford; Head Teaching Assistant   January 2023 – Present
- Served as head TA for the **Geometric Deep Learning and Graph Representation Learning** courses
- Created the coding assignments for the different classes
- Guided 30 graduate students through coursework, while in charge of 100 students
- Led 10 teaching assistants, coordinating effective tutorial sessions, and timely support for students

Blue Education; Private Tutor   July 2023 – Present
Taught Math, Physics and Computer Science for A-Levels, SAT, and college exams as an online part time tutor

Technion - Israel Institute of Technology; Head Teaching Assistant   March 2021 – June 2022
- Created all of the tutorials and code notebooks
- **Conducted hybrid online and classroom lectures** and practice sessions for the Geometric Deep Learning course
- Supervised 40 graduate and undergraduate students including final course projects

Matematix - High-School and College Exam Preparation Center; Teacher   July 2012 – November 2013
- Led sessions of thirty students twice a week
- **Taught Mathematics, Physics, English and Coding for matriculation, SAT, and college exams**