

BARAQ LIPSHITZ

☎ (628) 226-8196 • ✉ baraq@nyu.edu • 🔗 [linkedin.com/in/baraq](https://www.linkedin.com/in/baraq) • 🌐 baraq.github.io (website)

EDUCATION

ETH Zürich

MSc. Computer Science, Machine Intelligence concentration

September 2024 – May 2026

Zürich, Switzerland

New York University

GPA 3.99/4.0 *Bachelor of Science in Computer Science*

August 2021 – May 2024

New York, NY

Graduated 1 year early. Summa Cum Laude (top 5%). SAT 1560/1600 (top 0.5%).

Stanford University

GPA 4.0/4.0 *AI and Entrepreneurship Summer Intensive Studies*

May 2020 – September 2020

Palo Alto, CA

EXPERIENCE

Linvest21.ai

Machine Learning Engineer, Investment Platform

May 2024 – Present

New York, NY

- Working closely with former JPMorgan CTO to develop portfolio optimization pipeline for sector/security analysis.

NYU High Speed Research Network

Team Lead Software Engineer

September 2023 – May 2024

New York, NY

- Led a 3-person team to develop and integrate a proprietary low-latency event streaming platform (Corelink) into NYU research projects in AR/VR and neural imaging.

Forbes Media

Technology Operations Intern

June 2023 – August 2023

New York, NY

- Developed and deployed a new page on Forbes.com driving **\$2.6M revenue** (est.). Took extra initiative to lead team of four, design tech stack, manage milestones and timelines, present project to 30 senior engineers at close.
- Implemented monitoring and deployment features for a Kubernetes and GCP cloud infrastructure serving **~2 billion** requests per month. Found a critical security vulnerability.

Payoneer

API Software Engineer Intern

June 2022 – September 2022

New York, NY

- Developed new microservice (.NET, C#, MSSQL) by myself to send notifications to send international payment notifications for companies including Amazon, Google, and AirBnB. Sped up dozens of APIs by **~736%**.
- Analyzed microservices in production and fixed bottlenecks with Dynatrace/Coralogix, load tested APIs with k6.
- Discovered bug recovering \$4,100 lost revenue and \$2,000/year.

Lightning Tech

Founder of Technology Consultation Business

September 2017 – August 2023

Marin, CA

- Grew a business that earned **\$30,000+** profit serving 8 businesses and 200+ customers (as a high schooler).

SELECTED PROJECTS

AI/Computer Vision 3D Maze Solver | *vSLAM, VLAD, SIFT, OpenCV*

- Won first place in class competition using Visual Place Recognition, monocular depth estimation, pathfinding.

Song Classification ML Model | *XGBoost, PCA, Numpy, Scikit-learn, Plotly*

- Developed a machine learning model to classify songs into genres, achieving a high AUC of **0.93**.

Haskell-Based JavaScript-like Language Interpreter | *Haskell*

- Developed an imperative language interpreter in Haskell, using monads for AST parsing and state management.

LLM/RAG Chatbot | *Python, Langchain, ChromaDB, Llama3*

- Led team of 4 to create RAG chatbot for medical diagnosis. Built UI and scraped web articles.

Research for NYU Martin Luther King, Jr. Program | *NumPy, Playwright, Python, Typescript*

- Took initiative to propose research on bias against diverse professors, awarded **\$7,500 grant**.
- Scraped **772,542** evaluations and analyzed data, identified significant evidence of discrimination.

Fitme | *Swift, Node.js, Firebase*

- Founded social ecommerce platform after identifying friction w/ recommendation systems, platform fragmentation.
- Wrote **11,171** lines of Swift, designed UI/UX, developed backend: algorithm, messaging, media, authentication.

SKILLS

Programming: C++, Python, C, Java, Swift, JavaScript, TypeScript, SQL, React

Tools: Google Cloud Platform, Langchain, PyTorch, Scikit-learn, OpenCV, Numpy, Kubernetes, CUDA, MPI, OpenMP

Languages: English (Native, US Citizen), Hebrew (Native)