

BARAQ LIPSHITZ

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EDUCATION

New York University

August 2021 – May 2024

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

Brooklyn, NY

SAT 1560/1600 (99.5th percentile)

Stanford University

May 2020 – September 2020

GPA 4.0/4.0 *Business & Innovation Summer Intensive Studies*

Palo Alto, CA

Relevant Coursework: Analysis of Algorithms, Data Structures & Algorithms (Python), Implementation of Programming Languages (Haskell, Prolog, Forth), Object Oriented Programming (C++), Operating Systems (C, x86), Computer Architecture (x86, MIPS), Linear Algebra, Databases (SQL), Data Analysis, Project Management, Marketing, Discrete Math, Calc 2, Physics

EXPERIENCE

NYU High Speed Research Network

September 2023 – Present

Team Lead, C++ Software Engineer (Paid)

New York, NY

- Interviewing & leading a 3 person team to develop a high-performance C++ networking server in spring semester.
- Engineering a high-throughput, low-latency C++ network client powering groundbreaking research in AI, AR/VR, applied physics, computational chemistry, and audio engineering.

Forbes Media

June 2023 – August 2023

Technology Operations Intern (Paid)

New York, NY

- Primary deployment and frontend engineer for dynamic webpage to drive **\$2.6M revenue** (est.). Built Argo pipeline, configured GCP hosting and Varnish routing logic. Collaborated with design team and built site with GatsbyJS, React, and SASS for mobile & desktop.
- Optimized platforms/pipelines for revenue-driving AI and CMS supporting **~2 billion** requests per month.
- Key contributor to full stack development of Next.js DevOps portal. Discovered critical security vulnerabilities.
- Migrated 18 deployment pipelines to Argo. Improved in-house Kubernetes Argo Slack trigger in Go.

Payoneer

June 2022 – September 2022

Backend Software Engineer Intern (Paid)

New York, NY

- Built new microservice for payment notifications in .NET, C#, & MSSQL with load balancing and asynchronous request queue to replace synchronous SQL proc calls and **speed up dozens of APIs by ~736%**.
- Monitored microservices and fixed errors and bottlenecks with Dynatrace/Coralogix, load tested APIs with k6.
- Discovered microservice bug leading to recovery of \$4,100 in past lost fees + projected \$2,000/year fees recovered.

Lightning Tech

September 2017 – August 2023

Founder of Technology Consultation Business

Marin, CA

- Earned **\$30,000+** profit serving **8 businesses** and **200+ customers** with IT consulting & web design & SEO.

PROJECTS

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

- Awarded \$7,500 grant for proposing to research student bias against diverse NYU professors.
- Developed multithreaded web scraper w/ built-in process manager in Node.js & Playwright to scrape 5 years of university-wide course evaluation data for **772,542** instructor evaluations.
- Analyzed and visualized data with Numpy and Matplotlib **identifying significant evidence of discrimination** against professors of color at NYU. Crafted literature review and findings analysis.

Fitme | Swift, Node.js, Firebase (as seen on website)

- Wrote **11,171** lines of Swift for iOS social media ecommerce application and designed UI/UX.
- Wrote backend in node.JS: algorithm, direct messages, media storage, authentication.

TECHNICAL SKILLS

Programming Languages: C++, Python, C, Java, Swift, JavaScript, TypeScript, SQL, Haskell, Go (Golang), CSS, SASS, PHP, Intel x86 Assembly, MIPS Assembly, C#, Forth, Prolog, Verilog

Frameworks: React.js, Kubernetes (k8s), Next.js, SwiftUI, ASP.NET, Playwright, React Native, Tkinter, Latex, HTML

Tools: Google Cloud Platform, Git, K6, Dynatrace, Coralogix, Google Firebase, MongoDB, MSSQL Server, Gatsby, k9s, Stern, NumPy, Matplotlib, Next.js, Argo, Microsoft Azure DevOps, Jira, VSCode, Xcode

Languages: English (Native), Hebrew (Native)

ACTIVITIES & AWARDS

Awards: \$1000 “Best Mobile/Web App” Marin Hack4Health 2017; Dean’s List all semesters

Hobbies: Third degree black belt in Taekwondo, Wrestling, MMA, Certified Scuba Diver, Sailing, Skiing, CPR Certified