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

TECHNICAL SKILLS

Programming Languages: C++, Python, C, Java, JavaScript, TypeScript, SQL, Haskell, Go (Golang), CSS, SASS, Intel x86 Assembly, MIPS Assembly, C#, Forth, Prolog, Verilog
Frameworks: React.js, Kubernetes (k8s), Next.js, 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
Languages: English (Native), Hebrew (Native)

EXPERIENCE

NYU High Speed Research Network   September 2023 – Present
C++ Software Engineer (Paid)   New York, NY
- Engineering a high-throughput low-latency network client to power groundbreaking research in areas including AI, applied physics, computational chemistry, AR/VR, and audio engineering.

Forbes Media   June 2023 – August 2023
Technology Operations Intern (Paid)   New York, NY
- Primary deploment and frontend engineer for dynamic webpage to drive **$2.6M revenue** (est.). Built Argo pipeline, configured GCP hosting and Varnish routing logic. Built page with React and SASS for mobile & desktop. Collaborated with product design team and wrote TRD praised by senior engineers.
- Optimized platforms for revenue-driving AI and CMS supporting ∼**2 billion** website 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 microservice for payment status notifications in .NET, C#, & MSSQL with load balancing techniques and asynchronous request queue to replace synchronous SQL proc calls and **speed up dozens of APIs by ∼736%**.
- Monitored APIs in production to fix errors, find bottlenecks, and load test with Dynatrace, Coralogix, & 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.
- Conducted statistical analyses and graphed 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*
- Fashion social media and ecommerce platform, server-connected iOS application (as seen on website)
- Wrote **11,171** lines of Swift for iOS application and designed user interface applying UI/UX principles.
- Designed architecture for and programmed backend: algorithm, direct messages, media storage, authentication.

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