Jacob Trock

Boston, 02125 • (203) 216-2725
trock.j@northeastern.edu • [LinkedIn](#) • [GitHub](#)

Passionate, genial programmer.

Work Experience

Broad Institute of MIT and Harvard, Cambridge MA 01/2023-Present
Software Engineer *for open source scalable biomedical platform Terra*
- Lead efforts on team and working group to convert components to Typescript
- Proposed and led efforts to implement prettier/eslint on large open-source codebase
- Implemented and tested new modal to delete Azure disks in React with Typescript as part of collaborative effort to add support for persistent disks
- Worked collaboratively to regress and repair breaking changes in the hour after they were discovered

Phast Diagnostics, Boston MA 01/2022-06/2022
DevOps/Hardware Engineer *for antibiotics-resistance AI platform*
- Worked alongside senior engineer to develop secure patient data and encryption handling backend in Java
- Worked on client/hospital facing GUI, developed C# algorithm to compensate for chip curve, implemented comprehensive unit testing
- Wrote Bash scripts to manage uploading data from hard drives to cloud platform
- Debugged Python Jupyter notebooks in production Docker containers and wrote scripts to parse >1gb excel sheets from hospitals into DB query format
- Managed AWS edge Lambda, RDS(Postgres) and EC2 resources across international regions(US, Europe, Korea)
- Proposed and Reduced costs by up to 60% by porting existing Lambdas to more affordable ARM instruction sets and by using less expensive SPOT instances
- Prototyped hardware and software for cloud-enabled microscope for AI diagnosis ecosystem
- Made visual assets for GUIs and presentations using the Adobe Suite

Education

- BS Computer Science, Graduation 2025, Khoury College of Computer Science, Northeastern University
- BS Business, Graduation 2025, D'Amore McKim School of Business, Northeastern University

Personal Endeavours

- [Zome](#): A distributed filesystem/db/os for embedded devices written in go
- [Paracord](#) A high-security ephemeral chat program that operates entirely in the browser
- TimedOut, a time management application for the IPhone Northeastern Husky Startup challenge(2023) finalist
- [Geocrypt.me](#) browser-based portable, self-decrypting file encryption
- Nebulous Systems: Cloud-portable SaaS, built out billing systems, backend(2022)
- ServiceEngine: NoCode File processor, Invited to TechCrunch Disrupt, youngest finalist at Northeastern Husky Startup challenge(2021)
- Furniture Design (metal welding and woodwork), Technology recovery and refurbishment, 3D printer repair, Linux/Nixos, Secure computing, low-level/embedded systems, camping, kayaking, biking, skateboard photography