**Jacob Trock** Boston, 02125 • (203) 216-2725

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**Passionate, genial programmer.**

***Work Experience***

**Broad Institute of MIT and Harvard, Cambridge MA 01/2023-Present**

***Software Engineer*** *for* [*open source*](https://github.com/DataBiosphere/terra-ui/pulls?q=is%3Apr+author%3Atrock-broadinst+) *scalable biomedical platform* [*Terra*](https://terra.bio/)

• 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 f****or* [*antibiotics-resistance AI platform*](https://phastdiagnostics.com/)

• 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](https://github.com/jakeTrock/zome): A distributed filesystem/db/os for embedded devices written in go

• [Paracord](https://paracordchat.com/) 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](https://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