



# Jacob Trock

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**Passionate, genial programmer.**

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## Skills

*Languages: Typescript, Golang, Java, Shell, Python, C#, Web/GUI design programming( [React](#), [Vue](#))*

*Technologies: Databases(SQL, NoSQL), Video processing, Hardware/embedded, Graphic design,*

*Clouds (AWS, GCP, bare metal), ML training, Scraping*

## Work Experience

**DataLucent Technologies, Cambridge MA**

**05/2024-present**

**Software Engineer** for *talent management data portal* and *data ingest manager*

- Built out entire multi-regional data science platform alone, encompassing multiple databases, oAuth, file upload and more.
- Collaborated in product strategy meetings to study what users wanted, and what they would want, developing temporary and permanent solutions to meet their needs and test new markets, as well as optimize costs of existing resources as our operations expanded globally
- Translated legacy code and seamlessly made the switch from a kubernetes to serverless portal, saving money, and leading to a 15x+ faster load time

**Broad Institute of MIT and Harvard, Cambridge MA**

**01/2023-07/2023**

**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 rapidly repair breaking changes

**Phast Diagnostics, Boston MA**

**01/2022-06/2022**

**DevOps/Hardware Engineer** for *antibiotics-resistance AI platform*

- Worked on client/hospital facing GUI, developed C# algorithm to compensate for chip curve, implemented comprehensive unit testing
- Debugged Python Jupyter notebooks in production Docker containers
- Managed AWS edge Lambda, RDS(Postgres) and EC2 resources internationally
- 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

- [MIT hackathon finalist](#): worked on computer vision system for live recognition of sign language in video calls
- [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
- Nebulous Systems: Cloud-portable SaaS, built out billing systems, backend (2022)
- 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