

# Mark Bestavros

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## WORK EXPERIENCE

### Current: Senior Software Engineer, Datadog (Aug'25-Present)

- *Current team:* SDLC Security - working to improve Datadog's internal supply chain security processes; building tools to generate and verify key provenance information; ensuring SLSA compliance

### Senior Software Engineer, Red Hat (June'19-Aug'25)

- *Previous team:* [RHEL AI](#) – applying my background in secure supply chain to LLM artifacts: prototyping sign/verify tooling and participating in industry groups such as [CoSAI](#) + [OpenSSF Model Signing SIG](#)
- *Previous team:* Conforma – contribute to tools to verify build provenance and [SLSA](#) compliance
- *Previous team:* Office of the CTO Security – bootstrap nascent open-source security ideas into strong upstream community projects with a sustained emphasis on secure supply chain
- *Notable project contributions:* [Sigstore](#), [Keylime](#), [Conforma](#), [InstructLab](#), others
  - **InstructLab:** Contributed initial Sigstore support for user-created models [\[link\]](#)
  - **in-toto/Keylime/Sigstore:** Prototyped end-to-end secure supply chain delivery
    - [Repo](#). Demoed at [KubeCon 2022](#) during in-toto maintainer track talk.
  - **Keylime:** Led an overhaul of Keylime's runtime policy engine, including an [API revamp](#) and [format/backend modernization](#).
  - **Keylime/in-toto:** Implemented DSSE signature support into Keylime [\[link\]](#)
  - **Keylime:** Implemented a signing infrastructure overhaul [\[link, link\]](#)
  - **Sigstore:** Implemented AWS CloudHSM support into Fulcio [\[PR\]](#)
  - **Sigstore:** Wrote several Python APIs for Sigstore/Rekor interaction [\[link\]](#)
  - **Conforma:** Various contributions to ec-cli pertaining to policy [samples: [1](#), [2](#), [3](#), [4](#)]
  - **Sigstore:** Co-author for cosign-installer Github Action [\[link\]](#)
  - **Sigstore:** Authored some early Github Actions for keyless sign/verify [\[link\]](#)
  - **Enarx:** Created an [open source project management toolset](#) on GH Actions
- *Conferences:* DevConf.US 2024 ([speaker](#)), Red Hat Day Turkey 2022 (speaker), KubeCon 2022 (remote speaker, mentioned above), KubeCon 2021 (in person, Sigstore booth)
- *Notable blogs:* [Synthetic Media/Secure Supply Chain](#), [Kubecon diary](#), [Sigstore in a nutshell](#)

### Software Engineering Intern, Part-Time, Red Hat (Oct'18-June'19)

- Contributed to Keylime Rust agent: cloud-native remote attestation w/ TPMs [\[Github\]](#)

### Software Developer Intern, MITRE (Summer'18)

- Contributed to PSM, an open source healthcare app [\[Github\]](#); participated in MITRE eCTF

### Android Developer Intern, VMware (Summer'17)

- Worked on the Workspace ONE Android app, prototyping and testing new features

### Developer Intern, Hitachi Data Systems (Summer'16)

- Worked with the HCP Anywhere team to update/modernize their Android app

### Course Assistant, Boston University, Introduction to Computer Science I and II (Sep'15 - Dec'16)

## TECHNICAL SKILLS

**Python** (*Experienced — primary language used for many Red Hat work projects, including Keylime, InstructLab/RHEL AI*)

**Go** (*Experienced — used at Datadog and for some projects at Red Hat: Sigstore/secure software supply chain, EC, others*)

**Git** (*Experienced — used every day, in personal and professional contexts*)

**CI/Github Actions/Project Automation** (*Experienced — primary responsibility on the Enarx project*)

**Linux/Shell/Containers** (*Experienced — used every day at Red Hat, during my work at MITRE for Summer '18, and as a hobby*)

**Cursor** (*Familiar - used at Datadog and in personal projects; primarily used as a "force multiplier"*)

**Java/Android** (*Familiar — first language; highly used in coursework; worked with Android for two internships*)

**Others:** web (*personal projects*), Rust (*for a short time at Red Hat*)

## EDUCATION

### BA/MS Degree in Computer Science from Boston University (Class of 2019)

**Selected Coursework Highlights:** Applied Crypto, Network Security, National Security and Technology, Applied Urban Data Science, Differential Privacy, Fundamentals of Computing Systems, Crypto Theory, Advanced Algorithms

## MENTORSHIP

### Industry Mentor for BU Spark! Innovation Fellows Program

(Fall'19 – Fall'24)

- Work with a different 4-5 student team every semester to incubate a project from idea to prototype to finished product. I provide technical and project management guidance.
- Occasionally run workshops on topics like intermediate Git/Github, shell, and others
- As of fall 2024, I've mentored ten semesters of student projects – and counting!

## COOL UNDERGRADUATE RESEARCH

### Project: Algorithmic Optimizations of Boston's Public Bus Network [[poster](#)]

(Fall'16 – Fall'17)

- Started as a Data Mechanics class project to improve Boston's public bus system
- Developed optimizations for bus stop placement and efficient bus allocation

## EXTRACURRICULAR ACTIVITIES, HACKATHONS, STUDY ABROAD

### Organizer, BostonHacks [[link](#)]

(Aug'15 – Dec'18)

- BU's student-run hackathon, attracting hundreds of students from around the US

### Board Member, BUILDS [[link](#)]

(Sep'16 – April'18)

- Boston University's student-run hackerspace, where I ran/taught workshops

### Rabat, Morocco Intensive Arabic Language Study Abroad Program

(Summer'15)

- Eight-week study abroad program with intense focus on Arabic language
- Immersive learning: homestay living w/ Moroccan family, conversed in Arabic/French

### Boston University Pep Band 1<sup>st</sup> Trombonist

(Sep'14 – Dec'17)

- Perform at university engagements and sporting events

### Hack UMass

(April'15)

- Team project: Leap Motion-powered musical instrument; finalist, top 8

## HOBBIES (not professionally relevant, but feel free to ask!)

### Tinkering with Technology

- Examples: setting up a Raspberry Pi NAS, running Pi-Hole on my home network, tinkering with Linux and Android, writing user scripts for Miniflux for more efficient news reading. It's fun!

### Urbanism/Transit/Biking

- I'm a huge train/transit nerd, especially around Boston's MBTA. Ask me for fun facts if you live in Boston! I like to follow what's new in the city and area with regards to pedestrian/biking infrastructure, and am constantly rooting for a better T. I'm also an avid biker.

### Gaming

- While at Red Hat, I organized and lead a Counter-Strike: Global Offensive team participating in the CEA, a corporate charity esports league. It was a lot of fun, a great way to meet people at the company I wouldn't have otherwise, and for a great cause!
- In addition to playing games, I also really enjoy modding them! If a game has official modding support, I'm liable to sink way too much time into it. I've also taken the time to write my own mods in the past.

### Music

- I play trombone!

### Hiking/Skiing

- I'm not an *intense* hiker, but I enjoy a good climb every now and again. I've also learned to ski in the past few years.