Nathan Weinberg

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EDUCATION

Boston University, Boston, MA   May 2019
 B.A. in Computer Science, Minor in Film and Television

SKILLS

- *Programming*: Python, Golang, Groovy, Bash, TypeScript, YAML, HTML/CSS
- *Database Management Systems:* MySQL, PostgreSQL, MongoDB
- *Tracking Systems:* Bugzilla, GitHub, Jira, Polarion, Trello
- *Other Technologies*: AI, Ansible, AWS, Containers, Elasticsearch, Git, Grafana, Jenkins, Linux, Prometheus

EXPERIENCE

Red Hat, Boston, MA

Senior Software Engineer   May 2024 – Present
- Founding member of the team transitioning InstructLab from an IBM Research proof-of-concept to a public open-source project that enables AI model production across a variety of hardware-accelerated profiles and served as the basis for the first version of Red Hat Enterprise Linux AI
- Served on multiple maintainer teams in the InstructLab community, which entailed designing major technical features, setting community governance policies, reviewing Pull Requests, triaging Issues, maintaining CI/CD actions for testing and releases, and running public meetings
- Bootstrapped CI/CD actions across all InstructLab repositories and majorly expanded on the end-to-end testing automation matrix for the Core, SDG, Training, and Evaluation libraries
- Owned several PyPI packages within the InstructLab organization, managing release policy and coordinating proper semvar tagging across multiple teams to maintain a stable dependency tree

Senior Software Quality Engineer   July 2022 – May 2024
Software Quality Engineer   July 2020 – July 2022
Associate Software Quality Engineer   July 2019 – July 2020
- Conceptualized and constructed an automated end-to-end system which ran Performance and Scale tests of the Network Observability Operator within a managed Kubernetes / OpenShift cluster and shared test results to stakeholders within Engineering, Documentation, and Project Management
- Designed and built a baremetal cluster load-balancing system in our hosted Jenkins CI platform with IRC client-based monitoring, which doubled utilization of server resources for automated installation and testing of Red Hat OpenStack Platform by the team
- Created Jeeves, an open-source email report generator for Jenkins written in Python that was adopted by six internal teams and received contributions from over a dozen collaborators on GitHub

Boston University Spark!, Boston, MA

Lecturer   Sept 2022 – Dec 2022
- Co-instructed DS/CS 519 - "Spark! Software Engineering X-Lab Practicum" course, which was designed to give students the opportunity to work on real-world software projects from partner clients in the Boston area, providing them with practical software engineering experience prior to entering the work force
- Shared responsibility for writing course content, grading, and conducting lectures and office hours

VOLUNTEERING

TransitMatters, Boston, MA

Labs Volunteer   Sept 2020 – Present
Labs Co-Lead   Nov 2023 - Nov 2024
- Contribute and review code for a variety of open-source TM Labs applications, such as the New Train Tracker and Data Dashboard
- Wrote initial CI and CD systems for several TM Labs applications using free open-source tools such as GitHub Actions and Ansible to automatically lint and deploy applications to AWS EC2 and Lambda, allowing us to minimize cloud compute overhead costs to the organization