

(617) 690-9816

**ROSS MIKULSKIS**  
<https://github.com/rkulskis>

rkulskis@bu.edu

## EDUCATION

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**B.A./M.S., Computer Science, Boston University**

**05/2025**

- Cumulative GPA: 3.73/4.0

**Boston Latin School**

**06/2021**

## SKILLS

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- **Programming Languages:** C, Python, Bash
- **Tools & frameworks:** Kubernetes, Docker, Git, Emacs, Google Cloud Services
- **Specialties:** CI/CD, Real-Time Operating Systems, Kernel Development

## WORK HISTORY

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**ProDex Labs, Brooklyn, NY**, Founding Engineer

**05/2025 - 10/2025**

- Orchestrated AI Agentic workflows to optimize manufacturing simulations and create simulation JSONs
- Deployed and managed terraform cloud infrastructure for GCP and Azure
- Created core UI design for visualizing factory as a circuit with New York Subway colors theme

**Red Hat Collaboratory, Boston, MA**, Cloud Engineer Intern

**09/2023 - 07/2024**

- **Unikernel Linux:** Hacked Linux with Professor Orran Krieger, PhD, to dynamically link applications to the kernel for performance gains in industrial workloads (e.g., improved Redis throughput by 22%)
- **OPE Gradescope Bridge:** Implemented scalable OpenShift service REST API for grading student assignment code in Open Education Framework
- **OPE Testing:** Automated testing in container build process with GitHub Actions shell and Jupyter Notebook tests; reduced container build time by 70% using mamba

**Boston University, Boston, MA**, Teaching Assistant

**09/2022 - 05/2025**

- Taught CS 131 (Combinatorics) for two semesters and CS 330 (Algorithms) for 5 semesters

## PUBLICATIONS

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- R. Mikulskis, P. West, R. Syed, Z. Ruan, and R. West. “**RT-DDS: A Real-Time Data Distribution Service for Task Pipeline Processing**”. Manuscript in preparation.

## PROJECTS

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**RT-DDS** Real-Time Data Distribution Service

**08/2024 - Present**

- Built a functional composition dataflow pub-sub framework with real-time QoS guarantees
- Deployed to Quest-V Hypervisor to dispatch and connect services across Linux and Quest RTOS VMs
- Wrote Domain Specific Language (DSL) parser for creating RT-DDS service DAGs

**Bits of CS Inc.**

**03/2023 - Present**

- Founded a nonprofit, free online education.
- Authored a college-level curricula computer science textbook, published online at <https://bitsofcs.com>

**Standalone Operating System**

**12/2023**

- Co-developed a virtual disk in C and Assembly on intel i386 architecture with FIFO thread scheduling, inode-based file system, dual-mode system calls, and memory mapping

## HONORS AND AWARDS

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- **Hariri Institute Student Excellence Award (for Red Hat OPE)**, Boston University

**06/2024**

- **Student Academic Enhancement Fund (for Bits of CS Inc.)**, Boston University

**10/2023**

- **Thomas M. Menino Scholarship recipient (merit, full-tuition)**, Boston University

**03/2021**

- **All-State Jazz Trumpet (2nd place)**, MMEA All-State

**01/2021**

## VOLUNTEER WORK

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**Big Brothers Big Sisters of Eastern Mass**

**10/2023 - 9/2025**

- Volunteer Big Brother in BU community program, meet with brother every 2 weeks

**Charity Runner in Falmouth Road Race**

**08/2023**

- Raised funds for *Soccer Without Borders Boston*

**Fundraising Chair, Phi Kappa Tau**

**01/2023 - 05/2023**

- Organized a concert with Berklee student-led bands