

(617) 690-9816

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

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## **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

## **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://bitsofcscs.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

## **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.

## **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 \$850 in funds for *Soccer Without Borders Boston*

### Fundraising Chair, Phi Kappa Tau

01/2023 - 05/2023

- Organized a concert with Berklee student-led bands with net profit of \$800