# ROSS MIKULSKIS

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## EDUCATION

**B.A./M.S., Computer Science, Boston University**     **05/2025**
- **Cumulative GPA:** 3.73/4.0

**Boston Latin School**     **06/2021**

## SKILLS

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

## PROJECTS

**RT-DDS** Real-Time Data Distribution Service     **08/2024 - Present**
- Built a functional composition dataflow pub-sub framework with real-time QoS guarantees
- Uses the Quest-V Hypervisor to dispatch and connect services across Linux and Quest RTOS VMs

**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

## WORK HISTORY

**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

- 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

- **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

**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