

Eric Rippey

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EDUCATION

Virginia Tech

M.S. Computer Science	<i>2024 – 2026</i>	B.S. Computer Science	<i>2022 – 2025</i>
Research Focus: High-performance, embedded computing on heterogeneous systems (CPU/GPU)		GPA: 3.81	Focus: Parallel Computing and Systems

EXPERIENCE

Synergy Lab @ Virginia Tech

Sep. 2024 – Present

- Lead research assistant on sponsor funded project
- Analyze performance, power, and energy efficiency of compute heavy workloads on embedded platforms
- Design and implement parallel kernels for embedded CPUs and GPUs
- Develop portable computation pipelines that run across heterogeneous SoCs with minimal code changes
- Translate research results into drop-in software library
- Evaluate and benchmark workloads on Rockchip, Broadcom, Qualcomm, and NVIDIA SoCs

Software Engineering Intern | SphereOI

May – Aug. 2024

- Implemented and tested authorization services used across production systems
- Designed uniform performance logging to improve aggregation and analysis on remote systems
- Communicated technical progress and design tradeoffs to engineers and customers

LEADERSHIP

Capstone Technical Lead

Sep. – Dec. 2025

- Mentored undergraduate teams in a scientific computing capstone course
- Defined technical objectives and documentation for a parallel computer vision project
- Reviewed and provided feedback on parallel algorithm design and performance considerations

Virginia Tech Club Gymnastics Officer

President

May 2024 – 2025

- Set expectations for the entire club through public announcements and weekly scheduled officer meetings
- Grew club size to largest active membership since 2018

Vice President

May 2023 – 2024

- Director for Virginia Tech's home competition: optimized schedule to fit time constraints, bringing 150+ competitors together

SKILLS

- Languages: C, C++, OpenCL, CUDA, Python, Java
- Systems: Linux, embedded platforms, heterogeneous compute

PERSONAL DEVELOPMENT

- **Self Hosting:** Learned networking to set up linux server to create and deploy personal websites
- **Hackathons:** HackViolet 2024 — learned Java audio input libraries to convert humming into musical notation