Research Interests: Networking, Operating Systems and Architecture.

Education

Massachusetts Institute of Technology | Fall 2025 -

· PhD in Computer Science

Cornell University | GPA: 4.0 | Fall 2021 - December 2024

· B.S. in Computer Science (College of Engineering)

Publications

• Fast and Safe IO Memory Protection

Benny Rubin, Saksham Agarwal, Qizhe Cai, Rachit Agarwal ACM SOSP 2024 – <u>Link to paper</u>

Autonomic Passive IT-OT Device Classification in ICS/SCADA Networks

*Benny Rubin, Ali Tekeoglu, Christopher Rouff*IEEE CSR ACSICS Workshop 2024 – <u>Link to paper</u>

Hydra: Effective Runtime Network Verification

Sundararajan Renganathan, **Benny Rubin**, Hyojoon Kim, Pier Ventre, Carmelo Cascone, Daniele Moro, Charles Chan, Nick McKeown, Nate Foster
ACM SIGCOMM 2023 – <u>Link to paper</u>

Experience

Clockwork Systems | March 2025 -

· Accelerating datacenter networking and GPU AI training jobs

Lawrence Livermore National Lab | Summer 2022

- Built an interactive honeypot environment modeling Industrial Control Systems and analyzed the network traffic for threat detection
- · Evaluated mechanisms and effectiveness of popular internet scanning tools such as Shodan and Censys
- · Competed in red teaming CTF challenges involving forensics, web exploitation, crypto, and pwning

Johns Hopkins University APL | Summer 2019, Summer 2020 - Summer 2021 (Gap year)

- Led a team, working on a large software project for fingerprinting and scanning Industrial Control Systems networks.
- · Worked on the stress testing team for ACASX, an FAA funded Collision Avoidance System in collaboration with MITLL. Analyzed millions of aircraft encounters using custom built statistical analyses tools

Teaching Experience

- TA for Computer Systems Organization and Programming, spring 2022
- TA for Operating Systems, fall 2022, spring 2023, Fall 2023

Honors & Awards

- MIT Jacobs Graduate Presidential Fellowship, 2025
- Cornell Merrill Presidential Scholar, 2025
- Cornell Quill and Dagger senior honor society, 2024
- CRA Outstanding Undergraduate Researcher Award honorable mention, 2024
- **Teaching Excellence Award** from Cornell CIS, Fall 2023
- Cornell College of Engineering John McMullen Dean's Scholar, 2021