Jonah Rosenblum

Computer Science and Engineering jonaher@umich.edu
University of Michigan jonahrosenblum.com

Research Interests

I am interested in building systems that protect data privacy and integrity. My recent work uses trusted hardware technology to protect the sensitive data in genome analytics, and explores code transformations to protect against side-channel attacks. Prior work prevents Rowhammer attacks between VMs by allocating memory that physically isolates VMs across subarray boundaries.

Education

University of Michigan Ann Arbor, MI
Ph.D. in Computer Science and Engineering *Sep 2022-Current*
Advisor: Satish Narayanasamy
GPA: 3.99

University of Michigan Ann Arbor, MI
M.S. in Computer Science and Engineering *Jan 2021-Dec 2021*

University of Michigan Ann Arbor, MI
B.S. in Computer Science *Sep 2017-Dec 2020*

Publications

1. **Jonah Rosenblum**, Juechu Dong, Satish Narayanasamy. "*SECRET-GWAS: Confidential Computing for Population-Scale GWAS*." Under submission in Nature Methods.

2. Kevin Loughlin, **Jonah Rosenblum**, Stefan Saroiu, Alec Wolman, Dimitrios Skarlatos, and Baris Kasikci. "*Siloz: Leveraging DRAM Isolation Domains to Prevent Inter-VM Rowhammer*." In **Symposium on Operating Systems Principles (SOSP)**. 2023.

Employment

Google Virtual
Software Engineering Intern *May-August 2021*
Team: GCloud Infrastructure
Analyzed inversion between network and application priority for high-priority Google traffic across all clusters and identified strategies to align less latency sensitive traffic with appropriate QoS.

Google Virtual
Software Engineering Intern *May-August 2020*
Team: Cloud Trace
Worked on open-source telemetry tool OpenTelemetry, implementing graceful shutdown for processes to ensure all traces and metrics are exported.

Teaching

Advanced Operating Systems (EECS 582) Ann Arbor, MI
Graduate Student Instructor for Prof. Ryan Huang. *Sep-Dec 2023*

Parallel Computer Architecture (EECS 570) Ann Arbor, MI
Graduate Student Instructor for Prof. Satish Narayanasamy. *Jan-May 2021*

Professional Activities

CSEG Security Reading Group Co-Chair Ann Arbor, MI
Run weekly security group meetings to discuss current research papers. *Jan 2023-Current*

Student Applicant Support Program Volunteer Ann Arbor, MI
Provide prospective Ph.D. students with advice and feedback on applications. *Oct 2023-Current*

Grad Mentor Program Volunteer Ann Arbor, MI
Research/grad program mentor to Master's and Ph.D. students. *Sep 2023-Current*

Technical Skills

Programming Languages: Proficient in C, C++, and Python. Familiar with many other object-oriented languages.

Other skills: Kernel development (QEMU/Linux)