Lior Zeno – Curriculum Vitae
July 2023

EDUCATION

Doctor of Philosophy (PhD), Electrical Engineering   March 2019 – present
Technion – Israel Institute of Technology, Haifa, Israel
Thesis: Abstractions for Programmable Switches

Master of Science (MSc), Electrical Engineering   October 2014 – February 2019
Technion – Israel Institute of Technology, Haifa, Israel
Thesis: I/O-Intensive Workloads on Accelerators

Bachelor of Science (BSc), Computer Engineering   October 2009 – October 2013
Technion – Israel Institute of Technology, Haifa, Israel

PROFESSIONAL EXPERIENCE

Microsoft Research, Redmond   April 2023 – July 2023
Research Intern
   – Mentors: Jacob Nelson and Dan Ports.

Rice University   August 2022 – October 2022
Visiting Research Scholar
   – Hosted by Prof. Ang Chen.

Technion – Israel Institute of Technology   March 2019 – March 2023
Teaching Assistant (in charge)
   – Structure of Operating Systems (046209)

Israel Defense Forces - Military Intelligence   December 2016 – October 2018
Senior Software Engineer
   – Developed a satellite imagery management web application (full-stack).

   – Optimized latency-sensitive workflows, such as user-specific data and image loading times.

Israel Defense Forces - Military Intelligence   October 2013 – December 2016
Software Engineer
   – Designed and implemented data stream processing systems, focusing on data and graph analytic.

   – Developed a broadcast-based join algorithm on top of Elasticsearch.

   – Designed and implemented a RESTful low-frequency video distribution engine.

   – Developed a rich-client, data-management desktop application.

PUBLICATIONS

[1] Lior Zeno, Dan R. K. Ports, Jacob Nelson, Daehyeok Kim, Shir Landau Feibish, Idit Keidar, Arik Rinberg, Alon Rashelbach, Igor De-Paula, Mark Silberstein. **SwiSh: Distributed Shared State Abstractions for Programmable Switches.** In *Proceedings of the 19th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, 2022.

[2] Lior Zeno, Dan R. K. Ports, Jacob Nelson, Mark Silberstein. **SwiShmem: Distributed Shared State Abstractions for Programmable Switches.** In *Proceedings of the 19th Workshop on Hot Topics in Networks (HotNets)*, 2020.

[3] Lior Zeno and Mark Silberstein. **Enabling Auto-scaling of Data Plane Programs with The One Big Switch Abstraction.** In *The 10th Workshop on Systems for Post-Moore Architectures (SPMA)*, 2020.

[4] Haggai Eran, Lior Zeno, Zsolt István, Mark Silberstein. **Design Patterns for Code Reuse in HLS Packet Processing Pipelines.** In *Proceedings of the 27th IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM)*, 2019.

[5] Haggai Eran, Lior Zeno, Maroun Tork, Gabi Malka, Mark Silberstein. **NICA: An Infrastructure for Inline Acceleration of Network Applications.** In *Proceedings of the 2019 USENIX Annual Technical Conference (ATC)*, 2017.

[6] Haggai Eran, Lior Zeno, Gabi Malka, Mark Silberstein. **NICA: OS Support for Near-data Network Application Accelerators.** In *Proceedings of Workshop on Multi-core and Rack Scale Systems (MaRS)*, 2017.

[7] Lior Zeno, Avi Mendelson, Mark Silberstein. **GPUpIO: The Case for I/O-Driven Preemption on GPUs.** In *Proceedings of the 9th Annual Workshop on General Purpose Processing Using Graphics Processing Unit (GPGPU)*, 2016.

HONORS AND AWARDS

– HPI-Technion PhD scholarship (2019 – 2024).

– TA Excellence Award (2021).

– 1st place Mellanox BlueField Hackathon (2019).