Spring 2024 IAB Meeting, May 10, 2024

UC Santa Cruz Engineering Event Center (E2-180) and Courtyard

Invited Guests Please Register Here

Zoom link will be provided to registered guests

Agenda Highlights:

Alumni Highlight Talk: Memory-Centric Energy-Efficient Computing Systems
Rekha Pitchumani, Samsung

CXL
Panel

Pankaj Mehra   Matt Bromage   Mats Oberg

Rekha Pitchumani   Kirk Bresniker

Detailed Agenda

(note: videos and slides are available to current IAB sponsors, please email cynmccar@ucsc.edu for the link)

8:30 - 9:00 am Check-in and Breakfast

9:00-9:30 Welcome and Introductions and LIFE Forms [slides]

9:30-10:50 Project Updates 1

- Towards Emulating CXL-SSD with QEMU (Lokesh N. Jaliminche) [abstract]
- DASSL: Deployable Anonymity Systems with Security in the Long Term (Kyle Fredrickson) [abstract]
- Speculative Common Path Optimizations for Datacenter Workloads (Saba Jamilan) [abstract]
- Bede: Exploiting CXL-Memory for Job Scheduling (Pooneh Safayenikoo) [abstract]

10:50 –11:00 Coffee Break

11:00–11:30 Alumni Highlight Talk:

- Memory-Centric Energy-Efficient Computing Systems (Rekha Pitchumani, Samsung)

11:30–12:30 Project Updates 2:

- Lethe: Portable, Asynchronous Secure Deletion (Eugene Chou) [abstract]
- Application-Specified Memory Management (Allen Aboytes) [abstract]
- Towards Optimizing Search and Indexing In Vector Databases (Jayjeet Chakraborty) [abstract]

12:30–1:30 Lunch

1:30–2:30 Project Updates 3:

- High Throughput and One-Round-Trip RDMA for Disaggregated Memory Systems (Yi Liu) [abstract]
- MVVM: A WASI-empowered remote process resuming lightweight virtual machine (Yiwei Yang) [abstract]

- PPFaaS: Efficient Autoscaling in Serverless through Dynamic Pipelining (Yinzhe Zhang) [abstract]

2:30 –3:00 Coffee Break

3:00 – 4:00 Industry-Academia Panel: CXL Composable and Computational Memory Programming

Moderated by Pankaj Mehra (UCSC; Elephance)
Industry Panelists: Matt Bromage (Arm), Mats Oberg (Marvell), Rekha Pitchumani (Samsung), Kirk Bresniker (HP Labs)

4:00–4:15 LIFE Forms Review

4:15–4:45 Financial Overview, New Business and Feedback to Center Director (IAB Members only session)

4:45 - 6:30 Poster Session and Mixer at the Engineering Courtyard

Special Thanks to our IAB Sponsors: