Yizhou Shan

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RESEARCH INTERESTS

My research interests span Operating Systems, Distributed Systems, and Non-Volatile Memory Systems, with a focus on building fast and reliable systems for datacenters. I work at the Wuklab under the supervision of Yiying Zhang.

EDUCATION

Purdue University October 2016 – Present
Ph.D. in Computer Engineering

Institute of Computing Technology, Chinese Academy of Sciences June 2016
Graduate Coursework in Computer Science

Beijing University of Aeronautics and Astronautics June 2014
B.E. in Computer Engineering

PUBLICATIONS

Yizhou Shan, Shin-Yeh Tsai, Yiying Zhang, "**Distributed Shared Persistent Memory**", Proceedings of the ACM Symposium on Cloud Computing 2017 (***SoCC'17***)

Yizhou Shan, Yilun Chen, Yutong Huang, Sumukh Hallymysore, Yiying Zhang, "**Lego: A Distributed, Decomposed OS for Resource Disaggregation**", Poster at the 26th ACM Symposium on Operating Systems Principles (***SOSP'17***)

RESEARCH EXPERIENCE

Disaggregated Operating System April 2017 – Present
Purdue University
Design and implement a disaggregated operating system from scratch, for the emerging disaggregated datacenter architecture. Currently, the basic kernel functionalities are finished, we are focusing on the failure-tolerance part now.

Distributed Shared Persistent Memory September 2016 – April 2017
Purdue University
Proposed the concept of distributed shared persistent memory. Designed and implemented Hotpot, an in-kernel RDMA-based distributed shared persistent memory system.

NVM Emulator October 2015 – January 2016
Institute of Computing Technology, Chinese Academy of Sciences
Designed and implemented a NVM emulator in Linux kernel, which leverages Intel's performance monitoring unit to emulate NVM's slower read/write latency and smaller bandwidth on physical DRAM.

ARMv8 CPU Project June 2013 – September 2013
Institute of Computing Technology, Chinese Academy of Sciences
Participated in the Register-Transfer Level design and verification of some blocks within cache unit and load-store unit.