Jack Kosaian

jackkosaian.github.io ⋄ jkosaian@cs.cmu.edu

Education

Carnegie Mellon University Aug. 2017 - Present
Ph.D. in Computer Science
Advisor: Rashmi Vinayak

University of Michigan, Ann Arbor Sept. 2013 - Dec. 2016
B.S.E. in Computer Science & Engineering

Awards

NSF Graduate Research Fellowship (2017)
Angell Scholar (2015)
Branstrom Prize (2014)

Conference Publications

Parity Models: Erasure-Coded Resilience for Prediction Serving Systems
Jack Kosaian, K. V. Rashmi, Shivaram Venkataraman
ACM SOSP 2019

Vantage: Optimizing Video Upload for Time-shifted Viewing of Social Live Streams
Devdeep Ray, Jack Kosaian, K. V. Rashmi, Srinivasan Seshan
ACM SIGCOMM 2019

EC-Cache: Load-Balanced, Low-Latency Cluster Caching with Online Erasure Coding
K. V. Rashmi, Mosharaf Chowdhury, Jack Kosaian, Ion Stoica, and Kannan Ramchandran
USENIX OSDI 2016

Journal Publications

Learning-Based Coded Computation
Jack Kosaian, K. V. Rashmi, Shivaram Venkataraman
IEEE Journal on Selected Areas in Information Theory, 2020

Teaching Experience

CMU 15-440: Distributed Systems Spring 2020
Head Teaching Assistant

UofM EECS 370: Introduction to Computer Organization Fall 2015, Winter 2016
Teaching Assistant

Outreach

CMU SCS Creative Technology Nights
- Assist in teaching STEM concepts to middle school girls in the Pittsburgh area

Industry Experience

Microsoft Research May 2019 - Aug. 2019
Research Intern *Redmond, WA*
Mentor: Amar Phanishayee
- Researched strategies to improve the performance of in-house DNNs on various accelerators

Google May 2017 - July 2017
Software Engineering Intern *Seattle, WA*
BigQuery team
- Analyzed performance and scalability bottlenecks of high-throughput read/write API

Google May 2016 - Aug. 2016
Software Engineering Intern *Mountain View, CA*
gVisor team
- Explored hardware virtualization extensions for efficient sandboxing

Epic Systems May 2015 - Aug. 2015
Software Development Intern *Madison, WI*
- Developed dashboard for physicians to explore changes in patient health