BEARS 2009

Reliable Adaptive Distributed Systems Laboratory
465 Soda Hall, 2:00 – 4:00pm

The mission of the RAD Lab (Reliable Adaptive Distributed systems) is to create the technology to enable a single person to create and operate the next great Internet service. That is, to create a service like Ebay without having to build a company the size of Ebay. Leaders in machine learning, networking, and systems have formed interdisciplinary teams to fulfill this mission. If successful, we hope to enable a Fortune 1 million of Internet entrepreneurs.

The RAD Lab involves 7 faculty, 30 graduate students, and a few staff. To increase interdisciplinary interactions, we remodeled the south end of the 4th floor of Soda Hall to create an open collaborative environment. The new space overshot this target, and as we believe it is now accelerating our research.

Our funding comes primarily from industry and state matching programs, with our foundation partners being Google, Microsoft, and Sun Microsystems and with our affiliate members are Amazon Web Services, Cisco Systems, Facebook, HP, IBM, NetApp,VMware and Siemens.

Please come join us in our new lab in 465 Soda for a poster session where we will share with you our work in:

- Automatic analysis of console logs (Wei Xu)
- Automatic Work Load Generation (Kristal Sauer)
- Beyond Policy Aware Switching - (Dilip Joseph)
- Chukwa, and how it reflects lessons from Ruckus (Ari Rabkin)*
- Classification of SCADS Index Functions (Beth Trushkowsky)
- Datacenter in a Box(Zhangxi Tan)
- DC Metro Traffic Management (Rean Griffith)
- Deterministic Replay of Data Races (Gautam Altekar)
- Forecasting operational problems in datacenters using signatures (Peter Bodik)
- Improving Job Scheduling in Map reduce (Matei Zaharia)
- M.L. For Aututuning Multicore computers (Archana Ganapathi)
- Overview director (Peter Bodik)
- SaaS Education @ UCB (Will Sobel & Armando Fox)
- SCADS Indexing (Jesse Trutna & Nick Lanham)
- SCADS Update and Status (Michael Armbrust)
- Security of PCA algorithms: Attacks and Defenses (Blaine Nelson)
- TCP Incast Throughput Collapse in Internet Datacenters (Yanpei Chen, Rean Griffith) pdf
- Tequila: adding probabilistic inference to queueing theory (Charles Sutton)

- Using MapReduce to analyze large packet traces (Ari Rabkin +Andy Konwinski, in conjunction with Chukwa poster)*
- VM to Physical Machines Mapping - Gunho Lee