Mihir Shete

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homepage

EDUCATION

University of Wisconsin-Madison Sep 2015 – May 2017
MS in Computer Science
Coursework: Advanced Operating Systems, Introduction to Computer Networks, Distributed Systems, Big Data Systems, Machine Learning.

Birla Institute of Technology and Science - Pilani, Goa Campus Aug 2006 – May 2010
B.E.(Hons.) in Electronics And Instrumentation
Concentrated on projects and internships in the areas of Embedded systems' design and development.

EXPERIENCE

Apple Cupertino, CA
Software Engineer Jul 2017 – Present
- Working on Always on Processor(AOP) for Apple's devices

ZeroStack Mountain View, CA
Member of Technical Staff, Intern May 2016 – Aug 2016
- Evaluated OpenStack Cinder's Image-Volume cache for speeding up volume creation.
- Developed a framework to run ZeroStack environment on OpenStack to test scalability of the solution.

Qualcomm Hyderabad, India
Senior Software Engineer Jul 2012 – Jul 2015
- Maintainer of 802.11 driver's data path and the DMA driver for Linux.
- Worked on optimizing the data path and the Linux scheduler for Heterogenous Multiprocessors.
- Contributed in the development process of a data offload engine between 802.11 and LTE processors.

TeamF1 Networks Hyderabad, India
Software Engineer May 2010 – Jun 2012
- Design and Development of Linux device drivers for 802.11 Wireless SoCs in Enterprise Routers.

ACADEMIC PROJECTS & RESEARCH

Make Copy-on-Write Great Again
University of Wisconsin-Madison Jan 2016 – May 2017
Prof. Mike Swift
We are working on rethinking copy-on-write mechanisms and policies to reduce overhead of handling copy-on-write faults on large pages. These generic techniques can also be applied in the areas of File Systems where copy-on-write mechanisms are used for creating snapshots. We showcased our work in *Redis Conference 2016* held in San Fransisco.

Geo-Distributed Machine Learning
University of Wisconsin-Madison Sep 2016 – Dec 2016
Prof. Aditya Akella
Multinational organizations have data spread across geographically distributed datacenters. Running traditional machine learning algorithms on the geo-distributed data can be costly in terms of time required for convergence and money spent to transfer data to a centralized datacenter. We are looking into a hierarchical parameter server based model to address these issues.

Stressing The HDFS Maintenance System
University of Wisconsin-Madison Sep 2016 – Dec 2016
Prof. Remzi Arpaci-Dusseau
Developed a framework to run Hadoop in containers so that we can test large scale HDFS cluster on limited hardware resources. We then used this framework to stress the HDFS mainenance system and devised a simple formula to predict the probability of data loss depending on the rate of node failures. We also proposed alternative mehcanisms and policies to prevent the maintenance system from hampering the normal day-to-day Hadoop operations.

OPEN SOURCE

MSM Linux Kernel: Subsystem-Restart feature development and wireless regulatory framework maintenance
Prima Driver: Added code to support new DMA hardware and worked on data path maintenance
HTCondor: Contributing on developing an improved unit-test framework in perl and C

TECHNICAL SKILLS

Programming: C, Go, Python, C++, Perl, Lua, Shell Scripting, Javascript, Latex, Matlab, Java
Tools: Vim, Gdb, SystemTap, Eclipse, Android Development Studio