

VISHAL SAHU

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SUMMARY	I am member of <i>File systems & Storage Lab</i> (FSL), working under guidance of Prof. Erez Zadok. My primary areas of interest are operating systems, Storage, and Virtualization.	
EDUCATION	Stony Brook University , United States Aug 2015-Dec 2016(expected) <i>Masters in Computer Science</i> (GPA:3.50/4.0)	
	National Institute of Technology, Tiruchirappalli , India Jul 2007-May 2011 <i>Bachelor of Technology</i> (CGPA:8.76/10.0, <i>First Class with Distinction</i>)	
RELEVANT COURSEWORK	Operating Systems • Analysis of Algorithms • Supercomputing • Artificial Intelligence Advanced Microprocessors • Computer Architecture (x86 and ARM) • Asynchronous Systems.	
TEHCNICAL SKILLS	Languages: C, C++, Python, Bash, Assembly Operating System: Linux (kernel & user space programming), Windows Tools & platforms: Gdb, Valgrind, Git, QEMU, MATLAB Technologies/protocols: Virtualization, Cloud Storage, TCP/IP, 9P	
WORK EXPERIENCE	MTS Intern , VDFS dev group Jun 2016-Aug 2016 VMware, Palo Alto, CA	
	Senior Software Engineer , System Software group Jun 2013-Jul 2015 Samsung Research Institute, Bangalore, India	
PROJECTS	Virtual Distributed File System(VDFS) , VMware, Palo Alto, CA Jun 2016-Aug 2016 <ul style="list-style-type: none">• Optimized insertion of extents into in-memory B-tree to reduce meta data storage foot-print.• Implemented read interface of VDFS to connect to remote AWS S3 storage backend using AWS C++ SDKs.• Implemented proc-like posix interface to list all the backend storage objects in organized directory structure for easy access, eliminating the need of additional protocol.• Added feature of formatting a VSAN volume using user defined storage policy.	
	Anti-malware stackable file system(amfs) Sep 2015-Nov 2015 <ul style="list-style-type: none">• Implemented a stackable file system that efficiently quarantines the files containing malware.• Developed mechanism to update pattern database with minimal re-scanning overhead by implementing update-on-write version keeping mechanism.• User can define and upload forbidden words database during mount time.	
	Implementation of JOS Feb 2016-May 2016 Guide: <i>Prof. Donald E. Porter</i> , OSCAR lab, dept. of Computer Science <ul style="list-style-type: none">• Implemented light configured 64-bit JOS from scratch, writing memory management, scheduler, process management and file system.	
	Asynchronous utility module for Linux , Stony Brook University Oct 2015-Dec 2015 <ul style="list-style-type: none">• Developed asynchronous job queuing mechanism based on producer-consumer design paradigm.• Implemented appropriate locking mechanisms to avoid races and deadlocks.• Formulated fair scheduling policy to prevent starvation of low priority jobs.	
	Multimedia IP design , Samsung Research Institute, India Jun 2013-Jul 2015 <ul style="list-style-type: none">• Developed Scaler for Pinch-to-Zoom feature capable of scaling images in range of 0.25x - 4x.• Implemented SPIHT, wavelet coefficients based image compression algorithm.• Optimized run time of multimedia module by 60% using openGL vectorization on Qualcomm Adreno GPU.	
	Employee of the Month Award at Samsung India for significant contribution in compression algorithm development and implementation. My contributions have gone in Samsung Galaxy <i>Note4</i> .	
AWARDS & RECOGNITION		