

Shreya Kamath

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Education

Masters Computer Science – University of Wisconsin Madison. Aug 2015 - Dec 2016

- Coursework: Operating Systems, Advanced Database Management/Data Science, Masters Research

B.E Computer Science & Engineering – R.V College of Engineering. 2009 - 2013

- GPA- 3.66 Coursework: Algorithms, Data structures, Networks, Databases, Compilers, Unix System Programming

Employment

Graduate Research Assistant – University of Wisconsin Madison. Aug 2015 - Present

- Research and development of the Software Assurance Marketplace (SWAMP). Developed scripts to determine trends and statistics about missing and incorrect results produced by the SWAMP parser. Analyzed 6000 software packages and 500GB of data across multiple virtual machines. Perl, Shell script, Make, REST APIs, Unix, XML

Member of Technical Staff 2 – NetApp Inc. Aug 2013 - Aug 2015

- Development of the NetApp 7-Mode Transition Tool to transition from live non-clustered storage controllers to clustered controllers while ensuring minimum downtime. Worked on the module to extract data from Data ONTAP 7-Mode, assess the feature gaps between the controllers, migrating data, applying configuration changes, and performing environmental changes to the cluster. Modules: NFS, CIFS, DNS, LDAP, NIS, SAN, Users and Groups, IPv6. Technology: Java, Apache Tomcat, Spring, Hibernate.

Software Development Intern – NetApp Inc. Jan - Aug 2013

- Developed a web tool for scheduling and deploying test suites. Features: manage hardware reservations, monitor storage controllers, monitor status of deployed test suites, team dashboard, resource statistics, graphs. Perl, CGI, PHP, JavaScript, MySQL

Research Intern – Medical Intelligence and Language Engineering Lab (MILE), Indian Institute of Science. June – Sept 2011

- Developed a voice recorder with an audio level meter to record, playback, manage and upload audio clippings to a central database. Users need to record 200 sentences in three languages, which are used as input to a text to speech engine. Java, JPA, Derby, Maven, SWT

Projects

Xv6 Kernel Development – Scheduler, Stack, Exceptions, Concurrency, File Systems Sept - Nov 2015

- Implemented the following modules- Multi level feedback queue process scheduler, automatic stack growth upon page fault, exception handling for null pointers, kernel & user level multithreading libraries, file system integrity through checksums

Shell and Multithreaded Web Server Sept - Nov 2015

- Shell features: execute input commands, execute built-in commands like history, input redirection, execute batch scripts
- Developed a multithreaded web server which can handle multiple HTTP requests by using a pool of threads. Language: C

Data Science Pipeline Implementation Sept - Nov 2015

- Developed web crawlers using the scrapy framework. Used the following similarity measures for attribute comparison: jaccard, levenshtein. Used precision, recall, F-1 measure to find the best matcher among the following: decision tree, random forest, naive bayes, support vector machines, logistic regression, linear regression. Technology used: Python, Scrapy

Personalized, Bottom-Up, Crowd Sourced Search Engine 2013

- Used only anonymously collected implicit and explicit user data. Ranked pages based on UserRank, TF/IDF score and user interests. Data from 78 users over 3 weeks showed an 18% improvement in precision of results over a web crawled search engine.

Live migration and load balancing 2012

- Analyzed the performance of pre-copy and post-copy live migration algorithms. Performed load balancing to migrate VMs using two Xen hosts and an iSCSI target when the host system resource utilization breached the empirically determined threshold.

Publication and Awards

- Promoted from Member of Technical Staff-1 to Member of Technical Staff-2 within one year of joining NetApp (2014)
- Best App Award at Microsoft TechEd Windows 8 Camp (2012)
- IEEE UVCE national student conference. Second Place (2011) Best Paper Award (2010)

Skills

- Languages – Java, Shell, Perl, C, Python, C++, PHP, SQL, HTML, CSS
- Apache Tomcat, Spring Framework, REST, Hibernate, JPA, JSON, SOAP, Git, P4, REST, Unix, XML