Darsh Shah

darsh@cmu.edu | 412.961.3319 | Pittsburgh, PA

Education

Carnegie Mellon University - MS in Information Networking, Information Networking Institute
GPA: 3.83/4   **Expected Graduation:** May 2015
Courses: Intro to Computer Systems, Cloud Computing, Search Engines, Real Time Embedded Systems, Engineering Distributed Systems

Experience

Carnegie Mellon University | Graduate Teaching Assistant | Aug 14 - Ongoing
Teaching Assistant for graduate level 14-740 - Fundamentals of Computer Networks course

Apple Inc. | Software Engineering Intern (EFI Firmware Team) | May, 14 - Aug, 14
Was responsible for making infrastructure libraries to support diagnostics on production line
Implemented software solution which helped in increasing UPH (units/hr) during production

Qualcomm India | Associate Engineer | June, 12 - July, 13
Worked on FastCV, a computer vision library by Qualcomm
Wrote APIs in C and automation in Matlab and Perl to test Vuforia Augmented Reality App

Skills

Programming languages: Expert: C, Java Intermediate: MySQL, Shell scripting, Perl, Assembly for ARM and x86 Beginner: Python, PHP, ObjectiveC
Tools and Technologies: Linux, Android, Matlab, Hadoop, Arduino, Raspberry Pi

Projects

Real Time enhancements to the Linux Kernel (Sept, 14 - Ongoing | Team - 3)
Will be implementing Real-Time 'Resource kernel' framework for the Linux kernel on the stock Android Operating System for the Google Nexus 7 tablet.

Search Engine Algorithms (Sept, 14 | Team - 1)
Implemented a Boolean retrieval algorithm that evaluate queries and ranks documents based on Lucene. Will be implementing BM25 and Indri ranking along with query expansion

Failure Resilient Distributed photo sharing app with Two Phase Commit (Apr - May, 14 | Team - 1)
Developed a web application for sharing pictures and implemented a two phase commit protocol for maintaining consistency among different servers used for catering simultaneous clients

Dynamic Pre-Fetching and De-duplication in Coda File System (Mar - Apr, 14 | Team - 1)
Implemented these features in Coda file system using SHA-1 hashing and look aside database

Web-Service on Twitter dataset using Map Reduce (Jan - Apr, 14 | Team - 2)
Designed, developed and deployed a complete web service to respond to queries on a Twitter data set for specified cost and performance constraints using Amazon Web Services

Gravel: A Real Time Operating System Kernel for ARM processor (Aug - Dec, 13 | Team - 3)
Designed & implemented a shared memory, pre-emptive, multi-tasking RTOS kernel for ARM

Input Text Predictor (Apr - May, 14 | Team - 1)
Built an input text predictor, similar to Google instant, by generating a statistical language model on a list of n-grams generated from a text corpus using Hadoop Map Reduce in Java

Dynamic Memory Allocation library (Oct, 13 | Team - 1)
Implemented dynamic memory allocation library supporting - malloc, free, calloc, realloc function calls
Used segregated free lists with coalescing and First Fit algorithm for memory blocks

FitPlay: A Gamified Social Fitness App (Mar - Apr, 14 | Team - 2)
Developed an android app which motivates people to do exercise using concepts of gamification