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Samyukta Satish Rao

Looking for full-time opportunities starting May 2017
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University of Southern California

Viterbi School of Engineering, Graduate program in Computer Science | 3.65 GPA

People's Education Society Institute of Technology

Undergraduate program in Computer Science | 9.27 GPA

Los Angeles, CA

May 2017

Bangalore, India

May 2015

WORK EXPERIENCE

Internship at Door of Clubs, Inc.

Current

- Working on a Java based resume parser involving technologies like GATE and ANNIE to extract relevant data to enhance resume upload process. Built a REST based framework to connect the java application to Amazon S3 and a web hook to ping the platform when processing is completed. Provided start/stop/restart functionalities with init.d scripts on the UNIX platform to further assist in making the process easier.

Internship in the IT-Apps Department at Juniper Networks, Pvt Ltd, India

Jan-May, 2015

- I was involved in the development employee-centric application to manage trouble tickets within the company which gave me hands-on experience with amazon AWS and NodeJS.
- I helped the team with research on opensource monitoring tools and helped them identify the tools that were appropriate in the line of work.
- I was a team player and was a part of the POC for launching putty from browser for windows, Linux and Mac environments.

Summer Internship at the Centre for Cloud Computing and Big Data, Dept. of Computer Science Engineering, PESIT June-August, 2013

- Research project on Auto-scaling of Hadoop on OpenStack environment. It deals with the concerns of scaling and scheduling – two core concerns of deploying hadoop on cloud, due to the magnitude of data it handles.
- It deals with the storage modules that use the motto 'move the compute to the data rather than the data to the compute.'
- It provides an efficient way for industries to use open source cloud platforms like open stack and save costs as the other cloud platforms have the pay per use models.

SKILLS AND LANGUAGES

Operating Systems: Windows/Linux; **Programming languages:** C/Python/Java/HTML/CSS/JavaScript/PHP/MySQL

Other: Hadoop/Openstack/MS Office/Apache/Wireshark/Cisco Packet Tracer

RESEARCH INTERESTS

Computer Networks Applied Cryptography Cloud Computing and Big Data Software Engineering Operating Systems

PROJECTS (git handle: samyuktr)

First step towards developing a smartJacket

Jan-May 2015

- SmartJacket, a prototype to detect stress levels in a working individuals, is a wearable device, a jacket with sensors in the glove area that monitors the stress levels of an individual based on his physiological features and provides possible solutions.
- Awarded best project at the annual inter college science fest – Prakalpa, 2016, PESIT, Bangalore.

Socket Programming

Spring 2016

- Implementation of TCP stream socket with the following functionalities – a)File type request - The client gives the file type of the file provided by the client. b) Checksum - MD5 checksum of the file provided by the client is computed. c) Download - Given file is downloaded from the server. Large file sizes were also handled.

Java applet for the demonstration of ARP protocol for the Kurose-Ross website.

Summer 2014

- The aim of the applet, designed for the Kurose-Ross website, was to provide for a visualization of the ARP protocol to aid in its understanding, to go in tandem with their textbook. The applet is descriptive and is coded in Java. Provisions to control the packet movement speeds are given, for users to better understand the address resolution phase.
- The simulation also demonstrates how various protocols are applied to packets at each layer, giving the user an overall understanding of the packet transfer from source to destination hosts.

Weather Application

Dec 2015

- Two projects – a Web based responsive application and an Android application. Both of these include the following - REST API calls to forecast.io API, AJAX functionality, hosted on AWS server, includes a map view of the location that is searched for, option to post on Facebook and a variety of other features.

Visual Cryptography, Cryptanalysis and Simulation of the Openssl base64 commands

Feb 2016

- Visual cryptography using Doug Stinson's cryptography technique to encrypt merge and decrypt binary files using MD5 checksum for key generation. Cryptanalysis using the classic classical polyalphabetic substitution cipher. Kasiski's method, average index of coincidence and auto correlation methods have been used.

Event—driven simulator to simulate an Ethernet link.

Feb 2016

- Ethernet link simulator that handles packets arriving in deterministic, exponential and trace driven modes.

DES and AES Encryption Schemes

March 2016

- Implementation of DES and AES encryption schemes coded in C.

'StuMart' - an initiative to enhance the experience of buying and selling of student material within the campus

Jan-May 2014

- This project was done to get a practical experience of the Software engineering techniques. I headed group of 14 students and Agile Development techniques. A web-based portal provides a platform for easy access to resources or any material that the student might need.

Survey Application

Nov 2014

- This is a mobile enterprise application that aims at providing a flexible approach to assist the exhaustive data collection process by the non-government organizations, to evaluate the health conditions, securely maintain process and make the data available when required.

Scrabble - A UNIX System Programming Project

Dec 2014

- This project was executed in order to learn UNIX concepts, a design was formulated for five parallel online games of scrabble. Designed to avoid race conditions and control access to shared memory by processes that are running in parallel. IPC was enabled in order to exchange data among multiple threads in a process. Shared memory, Semaphores, Pipes, Fork, Exec, Signals and several other Unix System Programming concepts were used.