

EDUCATION

University of Southern California

Viterbi School of Engineering, Graduate program in Computer Science | 3.5 GPA

Los Angeles, CA

May 2017

People's Education Society Institute of Technology

Undergraduate program in Computer Science | 9.27 GPA

Bangalore, India

May 2015

WORK EXPERIENCE

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

Jan-May, 2015

Developed employee-centric application to manage trouble tickets within the company which gave me hands-on experience with amazon AWS and NodeJS. RnD on opensource monitoring tools. 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

Web Technologies

Applied Cryptography

Cloud Computing and Big Data

Software Engineering

COMMUNITY SERVICE

Parikrma Centre for Learning

June-Aug 2011

Involved in generating child profiles for under privileged children to promote individuals to fund their education.

Samarpana

March 2013, March 2014

Helped organizing a marathon to raise funds for their families and honor the soldiers in the army.

Stop Hunger Campaign

May 2015

Involved in packaging grains and nutritious vegetables for earthquake victims at Juniper Networks, India.

PROJECTS (git handle: samyuktr)

• First step towards developing a smartJacket

Jan-May 2015

A prototype to detect stress levels in a working individual and provide possible solutions. SmartJacket 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. Awarded best project at the annual inter college science fest – Prakalpa, 2016, PESIT, Bangalore.

• 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 Encryption

March 2015

Implementation of DES encryption from scratch 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.

ACTIVITIES

Trained in an Indian classical art form, Bharatanatyam, for 14years and graduated with a Diploma in dance in January 2014.

