YASH SHAH

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ACADEMICS

MS in Electrical and Computer Engineering, Georgia Institute of Technology

Major: Network Security/Computer Systems & Software

Bachelor of Engineering, Visvesvaraya Technological University, India

Major: Computer Science

Graduated: Dec, 2015

GPA: 3.4

Graduated: June, 2012

GPA: 3.3

TECHNICAL SKILLS

• **Programming languages:** C, C++, Python, Java

Web: Php, JavaScript, jQuery, Html5, CSS3
Database: MySQL, PostgreSQL, SQLite, MongoDB

• Security: MD5, OpenSSL, Diffie Hellman Key Exchange, AES, DES, RSA, Public Key Infrastructure (PKI)

• Other Tools: Scrapy, Scapy, WireShark, netstat, nmap, Git/GitHub, Django, CakePhp, Jekyll

• **Desktop Platforms:** Unix, Linux – Ubuntu, Amazon AWS

WORK EXPERIENCE

• Graduate Teaching Assistant at Georgia Institute of Technology

May, 2015 – December, 2015

Creating auto-grader scripts to check and grade 300+ students network simulation projects using – Pyretic and MiniNet, for Computer Networks Online Masters course.

• Web Application Developer at <u>Time Travels Pvt. Ltd.</u>

November, 2012 – December, 2013

Development of the company website and Central Data Management Systems. The system replicates and optimizes the existing DOS based software to an online interface.

Web Application Development Intern at Mark Steels Limited

July, 2012 – September, 2012

Created a centralized Data Management and Reporting Interface connecting remote office systems to a central facility.

PROJECTS

BlackThread: Predicting malicious intentions

A web domain classification toolkit built to identify the malicious nature of websites based on content, context, lexical and DNS analysis of the domain with a 96% successful prediction rate.

DNSg: Data gathering and Netflow analysis tool

Uses a custom daemon (CAPD) to crawl and collect network data for the Alexa 1M and analyze it for behavioral characteristics. The included the use of varied tools and infrastructure, including Amazon AWS server to host the tool, Postgres database system to store the 10+ million net-flow data records, coded in combination of scripts like python, bash, javascript and Docker containers for isolated capture of network data with Linux as its underlying system.

• Worm Propagation Modelling

Simulation on the rate of propagation of a worm on various network topologies of varying sizes, to identify its effects on the network and its corresponding when the entire network is saturated with infected nodes.

• Advanced Programing Techniques – coursework projects

Used advanced techniques and libraries to solve complex mathematical problems or computationally intensive tasks in an efficient manner. Like the use of MPI and PThreads libraries to perform 2DFT on image files, used OpenGL and CUDA to create animations of Icosahedron and Mandelbrot Set plot and GNU MP Library to implement RSA Cipher.

• YouTube Analytics

A database oriented project using Postgres database systems, for the collection and analysis of video data related to ranked content including top ranked 200 videos in 4 separate categories, in an effort to predict the future rank projections of the analyzed content.

• Dining Services Web Application

Designed and developed a web and android application to help users track the closest available dining options available in and around campus including services like Food Trucks, Dining Halls, Food Courts, Restaurants and Café's with complete menu availability and live store update system to track dynamic changes in operational hours, changes to menu's and also Deal of the Day store offers.

• Unified Services for Home Area Network

Research into the current state of Home/Personal Area Networks and proposed a solution for the unification of the various systems within the network under a single system.

COURSES TAKEN

- Intro to Information Security, Advance Computer Security, Computer Network Security, Broadband Access Networks
- Advanced Programming Techniques, Wireless Networks, CAD for Communication Network, Computing & Society
- Cyber Physical Systems, Mobile Application Development, Database Systems Concepts & Design