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Prashanth Basappa

Education

May 2015 **Cornell University**, *College of Engineering, Ithaca, NY.*
Master of Engineering, Computer Science and Engineering **GPA: 3.7/4.0**
Coursework: Defending Computer Networks; Large-Scale Information Systems; Disruptive Technologies; Databases; Information Retrieval

June 2014 **M S Ramaiah Institute of Technology**, *Bangalore, India.*
Bachelor of Engineering, Computer Science and Engineering **GPA: 3.68/4.0**
Coursework: Algorithms; Programming Languages; Computer Networks; Software Engineering; Computer Architecture

Technical Skills

Languages C, C++, SQL, Java, HTML/CSS, JavaScript, PHP
Databases MySQL, MongoDB, PostgreSQL, Neo4J
Technologies OpenFrameworks, NodeJS, Visual Studio, Eclipse

Experience

Spring 2014 **Indian Institute of Science**, *Project Trainee*, Bangalore, India.
- Achieved full network level privacy in Wireless Sensor Networks using IRL(Identity,Route,Location) algorithm.
- Incorporated J2ME Wireless toolkit to emulate the sender and receiver mobile nodes.
- Concluded RSA encryption algorithm to be 1.5 times faster than Deffie-Hellman Key Exchange algorithm.

Spring 2014 **Centre for Development of Advanced Computing (CDAC)**, *Intern*, Bangalore, India.
- Built an interactive quiz game in C++ which helps handicapped children to improve their sensory responses.
- Designed and developed an "Augmented Reality Board as a teaching aid" game for learning various subjects using a laser.

Academic Projects

Fall 2014 **Web Exploit Scanner - Cornell University**, *Developer - Defending Computer Networks.*
- Implemented a real-time web exploit scanner in C, with a HTTP proxy server (multi-threaded).
- Detected 100's of malicious domains on the Internet by replaying the HTML contents on a remote virtual machine.
- Performed malicious checking by detecting memory explosions and browser crashes.

Fall 2014 **Mini Search Engine - Cornell University**, *Developer - Information Retrieval.*
- Built a mini-search engine in Java using Lucene by indexing the query and documents for given set of collections.
- Implemented the four SMART tf-idf weighting variants and BM25 by calculating the MAP values for each.
- Constructed a new ranking of documents using Complete Clustering algorithm and Rocchio Relevance Feedback.

Fall 2014 **Port Scan Detector - Cornell University**, *Developer - Defending Computer Networks.*
- Built a network port scan detector in C, to identify various TCP port scan attacks.
- Calculated the detection score and reported attacker's IP address based on Sophos detection algorithm on all TCP ports.
- Implemented the libpcap interface to parse packets from an input pcap file.

Spring 2013 **Independant Research Project - Centre for Development of Advanced Computing (CDAC).**
- Presented a demo where the back end of the proposed system used NodeJS to store data in MongoDB.
- Implemented the base64 method to encode the image, then stored it using mongo's BinData type as a BSON bit array.
- This approach utilized 20% less space than the original binary image and also resulted in a 10x increase in server's responsiveness.

Honors

May 2010 Recipient of "MES Institutions Management Endowment Prize" for having secured highest marks in Physics achieved by only the top 2% in the state where more than 600,000 students appeared.

May 2014 Awarded the title "Most Active Student, Dept. of Computer Science, MSRIT 2010-2014" for overall contribution in cultural, sports, organizing, volunteering and academics.

Leadership and Other Activities

2013–2014 Completed and finished Open 10k Marathons(May 2013, May 2014).

Nov 2011 Served as a captain for the Under 19 soccer team during a citywide tournament.