Anand Agrawal

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OBJECTIVE

To obtain a career that will allow myself to take full advantage of my passion and experience in computer science.

EDUCATION

Master of Technology in computer science with 7.68 CGPA, July 2012 - June 2014 IIIT Hyderabad, Hyderabad, India

Bachelor of Engineering in computer science with 73.6 %, August 2008 - June 2012 Shri Vaishnav Institute of Tech. and Science, India

Senior Secondary with 84 percentage, Universal Academy, Indore, India July 2007 - June 2008

Secondary with 87.6 percentage, Baithal H S school, Indore, India July 2005 - June 2006

TECHNOLOGY SKILLS

Programming Languages: C, C++, Core Java, Python, Ladderlogic, Structural text. Web Technologies: HTML, CSS, Bootstrap.

Database: MySQL, Sqlite, Oracle.

Development Tools: Eclipse, Cisco Packet Tracer, Mininet, Web2py, Django, Latex Area of Interest: Algorithm and Complexity, Cyber Security, virtualization.

EXPERIENCE

Research Assistant

Since Feb 2016

Singapore University of Technology and Design, Singapore

- Working in a Cyber Physical Security Project "CYPRO" at SCy-Phy group leading by Assist. Prof Nils Ole Tippenhauer. website link: http://scy-phy.github.io/
- CYPRO project is about analyzing the vulnerabilities in Critical Infrastructure and different attack surfaces are investigated on Secure water treatment plant in "iTRUST" lab.

Assistant Professor

July 2014 - Jan 2016

Vignan Foundation of Science and Technology in Research University, India.

- Taught subjects on Data Structure and Advance Problem Solving.
- Involved in funded projects along with technical committee team member and published a research paper in IEEE conference.

FUNDED PROJECTS

- Configured E-Learning portal for Vignan's University and deployed the project on cloud server. Website link: www.vumoodle.org
- Deployed Faculty Calendar Project on the University Server. The Project is about maintaining the work load of faculties through portal and to avoid paper work in university.

• Automating the details of in-patient and out-patient of Guntur Government Hospital to avoid paper work and to provide easy storage and retrieval of data

MAJOR AND MINOR PROJECTS

Online Chat Summarization

2014

IIIT Hyderabad, Hyderabad, India

- Developed an automatic text summarizer tool.
- Tool extracts sentences from the conversation to form a summary by investigating new features and generic features set for email/chat conversation.

Wikipedia Search Engine

2013

IIIT Hyderabad, Hyderabad, India

 Built an efficient search engine algorithm for searching data in data set around 40GB.

System wide Process Viewer and Controller for all VMs

2013

IIIT Hyderabad, Hyderabad, India

- Implemented process controller for all the processes running across multiple virtual machine.
- Controller includes the process details such as memory usage, CPU usage and its priority.

Web Based Railway Reservation System for 3 Tatkal openings using web2py 2012 IIIT Hyderabad, Hyderabad, India

• In this Project, reservation portal is implemented in such a way that a person can have tatkal scheme benefits three times a day.

ADDITIONAL PROJECTS

Query Engine

• Simulation of Query Engine for SQL which parse and execute simple operation like select, where, join and aggregate function using C++.

Viral Marketing

• The idea of exploiting social interactions of users to propagate awareness for products, includes the way we select seeds to maximize the influence overall.

Network Design

 Design a reliable and scalable network for Election Commission of India in Cisco Packet Tracer.

RESEARCH

Ongoing research

- Matrix Hashing with two level of Collission resolution.
- Grouping in Collaborative E-learning environment based on Interaction among students.
- iTHREAT: Framework for internal threat model.
- Anomalous detection in SCADA System using rare state dependent invariant.

Papers going to publish

- On LadderLogic Bombs in Industrial Control Systems.
- Accepted paper "Towards High Interaction ICS Virtual Honeypot-in-a-Box" in Cyber-Physical System Security and Privacy(CPS-SPC) in conjunction with the 23rd ACM Conference on Computer and Communications Security(CCS) in Vienna, Austria.

Published paper

- Conflation of IoT with Raspberry pi 2 for MI Board Interaction. The 3rd IEEE sponsored 3rd International Conference on Electronics and Communication Systems (ICECS 2016), Coimbatore, India. Feb 2016
- Concom Sorting Algorithm (Approach based on counting and comparison). The 4th IEEE International Conference on Computer Science and Network Technology (ICCSNT 2015), Harbin, China. DEC 2015
- Experimental Analysis of Fixed Parameter Algorithms for Odd Cycle Transversals and Feedback Vertex Sets. International Journal of Engineering and Management Research. Vandana Publication, India. Oct 2015

ACADEMIC **HONOURS**

Secured All India GATE Rank 419 and 608 in the year 2014 and 2012 respectively. GATE is the highest Technical level National examination in India for the entrance of post-graduates aspirants in prestigious colleges.

Conducted workshop in PHP and HTML in chirala Engineering College, Chirala, Andhra Pradesh, India.

EXTRA-CURRICULAR ACTIVITIES

- Technical challenge maker team in Scy-phy week 2016. Scy-phy week is an annual event of SUTD to discuss and mitigate cyber attacks in future.
- Conducted Technical events logic killer and code Exchange in college Mahoutsav technical fest.
- Worked as a technical committee team member in Vignans University.
- Worked as a CSE Department training and Placement Coordinator in Vignan University.

DECLARATION I hereby declare that the information furnished above is correct in best of my knowl-

Place: Singapore

Date: 1^{st} of September 2016

ANAND AGRAWAL