

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	<i>Master of Technology in computer science with 7.68 CGPA</i> , July 2012 - June 2014 IIIT Hyderabad, Hyderabad, India	
	<i>Bachelor of Engineering in computer science with 73.6 %</i> , August 2008 - June 2012 Shri Vaishnav Institute of Tech. and Science, Indore, India	
	<i>Senior Secondary with 84 percentage,</i> Universal Academy, Indore, India	July 2007 - June 2008
	<i>Secondary with 87.6 percentage,</i> Baithal H S school, Indore, India	July 2005 - June 2006
TECHNOLOGY SKILLS	<i>Programming Languages:</i> C, C++, Core Java, Python, Ladderlogic, Scala. <i>Web Technologies:</i> HTML, CSS, Bootstrap. <i>Database:</i> MySQL, Sqlite, Postgres, Redis. <i>Development Tools:</i> Eclipse, IntelliJ IDEA, Cisco Packet Tracer, Mininet, Web2py, Slick, Latex, Github, Gitlab <i>Area of Interest:</i> Algorithm and Complexity, Cyber Security, Virtualization.	
EXPERIENCE	<i>Software Engineer</i> National University of Singapore, Singapore	Since Sep 2017
	Technology: Python, NS Simulator, Ansible, Vagrant, Docker, Django <ul style="list-style-type: none">• Working in National Cyber-Security R&D Lab.Website• Developing Pentest lab testing environment and Evaluation platform for security solution• Maintaining a shared national infrastructure that provides computing and networking resources for CyberSecurity research and development community.• Automating the industrial and enterprise solution.• Federating the industrial testbeds to enrich its capabilities• Developing Virtual environment for Critical infrastructure(OT Testbed) and applying formal methods to detect anomalous behavior in system.	
	<i>Software Developer</i> YuppTV.com, Hyderabad, India	Nov 2016 - Aug 2017
	Technology: Scala, Slick, Postgres, Redis <ul style="list-style-type: none">• Worked on project Rivulet (Mutli Tenant LIVE and VOD Streaming OTT Platform).https://platform.yupptv.com/• Developed YuppFLIX content crawler for movie and their cast(YuppFlix brings an easy access to Indian movies and TV Shows across 9 regional languages).	

- Designed Project for handling Telecom operator service details and API's to fetch country and network code.
- Developed Bazaar kids Category for kid content to broadcast in YUPPTV Bazaar section.

Research Assistant

Feb 2016 - Oct 2016

Singapore University of Technology and Design, Singapore

Technology: Python, Mininet, Ladder Logic, Flask

- Worked in a Cyber-Physical Security Project "CYPRO" at SCy-Phy group leading by Assist. Prof Nils Ole Tippenhauer. website link: [Scy-Phy](#)
- 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.

Technology: C, C++, Java

- 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 ACM & IEEE conference.

FUNDED PROJECTS

- Configured E-Learning portal for Vignan's University and deployed the project on cloud server.
- 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

Selections of Tags for Tag clouds

2014

IIIT Hyderabad, Hyderabad, India

- Developed a Tag recommendation model for collaborative bookmarking systems.
- Model receives as input a bookmark of a web page or scientific publication, and automatically suggests a set of social tags useful for annotating the bookmarked document.
Link:[Project Slides](#)

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.

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.

RESEARCH

Published paper

- "VOTNET: Modeling and Simulation approach for Operational Technology" accepted in WSC 2018 holding in Gothenburg, Sweden.
- Poster: "Physics-Based attack detection for an Insider threat Model in a Cyber-Physical System" published in Asia CCS 2018 held in Incheon South Korea.
- "Matrix Hashing with Two Level of Collision Resolution" published in 8th International Conference on Cloud Computing, Data Science & Engineering (CONFLUENCE 2018), Uttar Pradesh, India. Jan 2018.
- "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.
- "On Ladder Logic Bombs in Industrial Control Systems" in Proceedings of the Workshop on the Security of Industrial Control Systems and of Cyber-Physical Systems (CyberICPS), co-located with ESORICS in Oslo Norway, 2017
- 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
- link: [Google Scholar](#)

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 & code Exchange in Vignan University.

Place: Singapore

Date: 6th of Sep 2018

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