

Utkarsh Agarwal

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Dept. of Computer Science and Engineering
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Educational Qualifications

Year	Degree	Institution	CPI/Percentage
2013-2017(Expected)	B.Tech, Computer Science and Engineering	Indian Institute of Technology, Kanpur	9.4/10*
2013	AISSCE(CBSE 12th)	DAV Public School, Kota	92.4
2011	AISSE(CBSE 10th)	Mayoor School, Ajmer	10/10

*At the beginning of the fifth semester

Scholastic Achievements

- Secured All India Rank (AIR) **132** (top 0.09%) in **IIT Joint Entrance Examination (JEE) 2013**
- Selected to appear in **INJSO, 2010; INAO(Jr.), 2010** and **INChO, 2013**: National Olympiads conducted by HBCSE, India for being amongst the **top 300 in India**.
- Amongst the **top 100** out of 1000 selected from all over India for **NTSE Scholarship, 2009**: a prestigious scholarship funded by NCERT, Delhi.
- Awarded a certificate for being the amongst the **top 1 percentile in India** in NSEP.
- Awarded Merit Certificate by CBSE for securing **10/10 CGPA** in 10th class.

Professional Experience

- Summer Internship at Altisource Business Solutions Pvt. Ltd., Bengaluru
(Networking Department) (May-July, 2015)
 - Project CHEF
Objective: To automate configuration management of the organisation
 - * Automation of application installation and customisation was achieved with the features of easy customisation of software version, software configuration, etc.
 - * Any error encountered while installation or any major update was automatically reported
 - * Inventory management with reporting of key parameters like IP address, CPU count, memory, storage, etc. was automated
 - * The scripts to achieve above were written in DSL of CHEF
 - * The above was done for a cluster of hundred nodes
 - * Time and cost for building, upgrading and repairing infrastructure was significantly brought down
 - Project Graphite
Objective: To report server parameters through graphs using Graphite
 - * Installation of Graphite and its components Carbon and Whisper was done on a server
 - * Graphite was configured with setting retention periods using regex, configuring database
 - * Python scripting was done to input data into Carbon which involved data parsing and socket programming
 - * Testing with large data was done
 - * Real time monitoring of a scalable infrastructure was achieved
 - * The graphs helped in easy auditing of multiple machines by monitoring crucial parameters

Projects

- Scotland Yard Computer Game
(Under Programming Club, IITK) (May-June, 2014)
 - Designed GUI of the game using Pygame library in Python
 - Used Graph Theory to link the map of the city with a graph for use in AI
 - Wrote the AI of the game using Minimax Algorithm in Python
 - Used sockets library to extend it to a Multiplayer Version that can be played on LAN
- News Article Classifier
(Under ACA, IITK) (Jan-Feb 2014)
 - Used Beautiful Soup library in Python to extract news articles from websites
 - Used the Reuters Corpus for classification of words into different categories
 - Used the NLTK library to write a classifier that classified news articles on the basis of topics it was written upon i.e. Politics, Sports, Science, etc.
- CAM Hammer
(As part of TA201: Manufacturing Processes) (Aug-Nov 2014)
 - Awarded 2nd best Sectional Project
 - Building a miniature CAM Hammer using Cast Iron
 - Processes of welding, brazing, casting and sheet metal forming are being primarily used

Relevant Courses

Grades mentioned in parentheses and ongoing courses are marked with #

CS210: Data Structure and Algorithms (A*)	CS220: Introduction to Computer Organisation (A)
CS345: Operating Systems #	CS340: Theory of Computation #
CS251: Computing Laboratory (A)	CS201: Discrete Mathematics (A)
ESC101: Fundamentals of Computing (A)	MSO201: Probability and Statistics (B)

Technical Skills

- Programming Languages: C, C++, Python
- OS: Windows, Linux
- Tools: CHEF, Graphite
- Other: Git, Latex, Bash Scripting, Octave, Verilog, Assembly

Extra-Curricular Achievements

- Programming
 - Enthusiastic Competitive Programmer
- English Literary Activities / Debating / Oration
 - Stood 1st in Galaxy, an Intra IITK cultural fest
 - Adjudged Best Debater in Middle and Senior Section in School
 - Represented School in various Inter School Debate Competitions
- Quiz
 - School Quiz Team Captain
 - Represented School in various Inter School Quiz Competitions
- Tennis

- Stood 2nd in Freshers' Inferno, an Intra IITK sports fest
 - U-17 School Tennis Team Captain
- Member of Alumni Contact Program(ACP), IITK : A programme aimed at improving Alumni Relations

Positions of Responsibility

- Senior Executive, Public Relations, Antaragni14
 - Invited eminent personalities for Antaragni
 - Helped in managing events and looked after the guests
- Academic Mentor
 - Academic Mentor of ESC101 to 1st year students