

# Utkarsh Agarwal

Third Year Undergraduate  
Dept. of Computer Science and Engineering  
IIT Kanpur

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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

## 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
- 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