Utkarsh Agarwal

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Educational Qualifications

Year	Degree	Institution	CPI/Percentage
2017(Expected)	Bachelor of Technology	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 2013** amongst **0.15 million** candidates

- Secured **99.87** percentile in **JEE Main 2013** amongst **1.4 million** students from all over India

- 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**

- Selected for **NTSE Scholarship, 2009**: a prestigious scholarship funded by NCERT, Delhi

- Awarded a certificate for being amongst the **top 1 percentile in India** in NSEP

- Awarded a Merit Certificate by CBSE for securing **10/10 CGPA** in 10th class

- Awarded scholarship for being the class topper for 4 consecutive years (2007 - 2010)

Professional Experience

- **Summer Internship at Altisource Business Solutions Pvt. Ltd., Bengaluru**
  (Networking Department)   *(May'15 - Jul'15)*

  – Project CHEF

    Objective: To automate configuration management of the organisation

    * Scripted the project in DSL of CHEF
    * Attained automation of multiple application installation and customisation of features such as software version and configuration, dependency resolution, etc.
    * Automatically reported any error encountered while installation or a major update
    * Automated inventory management with reporting of key parameters like IP address, CPU count, memory, storage, etc. of a large cluster
    * Achieved the upkeep and setup of a **cluster of hundred nodes**
    * Accelerated the building, upgrading and repairing of infrastructure

  – Project Graphite

    Objective: To report server parameters through graphs using Graphite

    * Installed Graphite and its components Carbon and Whisper on a server
    * Configured Graphite by setting retention periods using regex and setting up databases
    * Scripted in Python to input data into Carbon which involved data parsing and socket programming
    * Tested plotting of **large dynamic data** over internal network
    * Achieved real time monitoring of a scalable infrastructure
    * **Transformed** and **expedited** the **auditing process** of multiple machines in the organisation by monitoring crucial parameters through graphs

Projects

- Scotland Yard Computer Game
  (Under Programming Club, IITK)   *(May'14 - Jun'14)*

    - 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
    - Implemented the AI of the game using Minimax Algorithm in Python
    - Used sockets library to extend it to a **Multiplayer** Version that can be played over **LAN**

Relevant Courses
Ongoing courses are marked with $^{\#}$

Data Structures and Algorithms	Introduction to Computer Organisation	Operating Systems $^{\#}$
Theory of Computation $^{\#}$	Algorithms-II $^{\#}$	Computing Laboratory
Discrete Mathematics	Fundamentals of Computing	Probability and Statistics
Logic for Computer Science	Abstract Algebra	Introduction to Electronics

Technical Skills

- Programming Languages: Assembly, C, C++, Python

- OS: Linux, Windows

- Tools: CHEF, Graphite

- Others: Bash scripting, Git, GNU Plot, Latex, Octave, Verilog

Extra-Curricular Achievements

- Programming

    - Enthusiastic Competitive Programmer
    - Active participation in various contests on Codeforces, Codechef and Spoj with **150 plus** problems solved
    - Rated expert on Codeforces with a rating of 1600 plus

- English Literary Activities / Debating / Oration

    - Stood first in Parliamentary Debate in Galaxy'14, an Intra IITK cultural festival
    - Adjudged **Best Debater** in Middle and Senior Section in School
    - Represented school in various Inter School Debate Competitions

- Member of Alumni Contact Program(ACP), IITK : A programme aimed at improving Alumni Relations

    - Mentored and led a team of 6 for contacting Alumni to foster a healthy relationship between them and the Institute
    - Adjudged an Executive caller for exhibiting **commendable soft skills**

- Tennis

    - Stood 2nd in Freshers' Inferno, an Intra IITK sports festival
    - U-17 School Tennis Team Captain

Positions of Responsibility

- Senior Executive, Public Relations, Antaragni'14   *(Mar'14 - Nov'14)*

    - Invited eminent personalities in the field of economics for Antaragni and looked after them
    - Helped in managing India Inspired, a panel discussion and Antaragni Leadership Initiative, a nationwide hunt for leaders
    - Convinced NGOs to organise Antaragni Leadership Initiative in major cities such as Delhi and Lucknow and also prepared the questionnaire for the same

- Academic Mentor   *(Jul'14 - Mar'15)*

    - Academic Mentor of Fundamentals of Computing to 1st year students
    - Took hall level classes and did peer to peer mentoring for academically deficient students