Utkarsh Agarwal

Third Year Undergraduate Ph: 7388447711

Dept. of Computer Science and Engineering E-mail: utkarsha@iitk.ac.in

IIT Kanpur

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 - July 2015)

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 of a large cluster through reporting of key parameters like IP address, CPU count, memory, storage, etc.
  + 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 - 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 over LAN

Relevant Courses

Grades mentioned in parentheses and ongoing courses are marked with #

Data Structures and Algorithms (A\*)

Theory of Computation #

Discrete Mathematics (A)

Introduction to Computer Organisation (A)

Algorithms-II #

Fundamentals of Computing (A)

Operating Systems #

Computing Laboratory (A)

Probability and Statistics (B)

Abstract Algebra (B)

Introduction to Logic (B)

Introduction to Electronics (A\*)

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

– Enthusiastic Competitive Programmer with 150 plus problems solved across various online judges

– Active participation in various contests on Codeforces, Codechef and Spoj

– Rated expert on Codeforces with a rating of 1616

• English Literary Activities / Debating / Oration

– Stood 1st in Galaxy in Parliamentary Debate, an Intra IITK cultural festival (Mar 2014)

– 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 (Dec 2013 - June 2014)

– 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 (Aug 2013)

– U-17 School Tennis Team Captain

• Grade 1 certification in Keyboard from Trinity College, London

Positions of Responsibility

• Senior Executive, Public Relations, Antaragni'14

(March - Nov 2014)

– 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

(July 2014 - March 2015)

– Academic Mentor of ESC101 to 1st year students

– Took hall level classes and did peer to peer mentoring for academically deficient students