

# ANUJ NAGPAL

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## EDUCATIONAL QUALIFICATIONS

| Year | Qualification  | Institute                                    | Performance |
|------|--|--|-------------|
| 2018 | Bachelor of Technology, Computer Science and Engineering | Indian Institute of Technology, Kanpur       | 9.3/10.0    |
| 2014 | AISSCE (Class XII - CBSE)                                | B. M. M. Sen. Sec. School, Mandi Killianwali | 96.2%       |
| 2012 | AISSE (Class X - CBSE)                                   | B. M. M. Sen. Sec. School, Mandi Killianwali | 10.0/10.0   |

## ACADEMIC ACHIEVEMENTS

- Received **Academic Excellence Award** from IIT Kanpur for the Academic Session 2014-15 as well as 2016-17.
- Secured an **All India Rank of 190** in **JEE Advanced 2014** given by about 150,000 shortlisted candidates from all across the country.
- Secured an **All India Rank of 220** and **State Rank of 4 in Punjab** in **JEE Main 2014** given by about 1,500,000 students.
- Conferred with **Kishore Vaigyanik Protsahan Yojana (KVPY) Scholarship** in 2012 by IISc Bangalore out of 40,000 candidates.
- Qualified National Standard Examination in Chemistry (**NSEC**) and National Standard Examination in Astronomy (**NSEA**) in 2013.

## INTERNSHIP

- Summer Analyst, Goldman Sachs Services Bengaluru, Securities Division**  
(Mentor: Anshuman Shankar, Vice President, Securities Division)

May'17 - Jul'17

|                              |   |
|------------------------------|---|
| <b>Role</b>                  | - Development, maintenance and testing of firm's RFQ system used for electronic trading of single name CDS and corporate bonds.   |
| <b>Major Tasks Completed</b> | - Added support for trading fractional-year tenor single name CDS for a major venue in New York and London.<br>- Implemented automated scenario tests for e-trading of corporate bonds on a major venue in New York. Anticipated reduction of manual testing effort before every code release.<br>- Unification of and making robust FIX protocol message dictionaries used for communication during electronic trade negotiations. |
| <b>Auxiliary Learning</b>    | - Familiarity with Java Object Oriented Programming and all the phases of SDLC.<br>- Introductory knowledge on trading mechanics of corporate bonds and credit derivatives.   |

## PROJECTS

- Finding Vulnerabilities and Improving Security of Zoobar Server**
- Probabilistic Word Sense Embeddings**
- Deep Reinforcement Learning against Pong AI**
- Joint Seat Allocation Algorithm for IITs, NITs, IIITs and other GFTIs**
- Java to x86 Assembly Compiler**
- Extending Nach Operating System**
- GDP Forecasting using Time Series Analysis**
- Live Video Multistreaming with Chat Room Functionality**
- Online Academic Registration Portal**
- Applications of Graph Algorithms in Discrete Markov Chains**
- Prutor Interface and Database Enhancements**
- Game Strategies using Combinatorial Game Theory**

Dr. Sandeep Shukla

Dr. Piyush Rai

Dr. Piyush Rai

Dr. Surender Baswana

Dr. Amey Karkare

Dr. Mainak Chaudhuri

Dr. Amit Mitra

Dr. Dheeraj Sanghi

Dr. Piyush Kurur and Dr. Satyadev Nandakumar

Dr. Avijit Khanra

Dr. Amey Karkare

Dr. Rajat Mittal

## POSITIONS OF RESPONSIBILITY

- Tutor, Fundamentals of Programming (ESC101), IIT Kanpur**

Jan'18 - Apr'18

- Responsible for smooth conduction of introductory programming course for freshmen students of IIT Kanpur.
- Organized weekly tutorials and created exam papers and quizzes for the evaluation of students.
- Mentored one advanced track student who opted for doing a programming project rather doing the lab assignments.

- Coordinator, Association of Computing Activities (ACA), Departmental Student Body, CSE IIT Kanpur**

Jul'16 - Jul'17

|                    |  |
|--------------------|--|
| <b>Leadership</b>  | - Conducted ACA Summer School open to students from all colleges with around 500 registered students and 5 courses.<br>- Mentored 10 first year students for a semester long project teaching them essential programming languages and utilities.<br>- Responsible for all the departmental activities ranging from freshers' for new batch to farewell to outgoing batch.                             |
| <b>Initiatives</b> | - Floated semester projects for 150 first year students under the mentorship of experienced seniors to promote coding culture in campus.<br>- Organized hackathons, programming contests, workshops and talks in collaboration with some reputed companies.<br>- Increased student-faculty and intra-department interaction by organizing happy hours, senior-junior sessions and team fun activities. |

## RELEVANT COURSES

- Computer Systems Security (A\*)
- Computing Laboratory (A\*)
- Operating Systems
- Design and Analysis of Algorithms
- Computer Networks
- Principles of Database Systems
- Compiler Design
- Computer Organization

- Probabilistic Machine Learning
- Applied Stochastic Processes
- Probability and Statistics
- Monetary Economics (A\*)
- Machine Learning Techniques
- Time Series Analysis
- Microeconomics (A\*)
- Macroeconomics

- A\* for exceptional performance

## TECHNICAL SKILLS

- Programming Languages:** C, C++, Python, Java, Bash, HTML, CSS, JavaScript, PHP, SQL, R, Haskell, Verilog, Assembly
- Software & Utilities:** Git, LaTeX, Vim, GDB, Gnuplot, GNU Octave, MATLAB, Ruby on Rails, Node.js, IntelliJ, Autodesk 3ds Max