Prakhar Kumar

Computer Science and Engineering
Indian Institute of Technology Delhi

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Academic Details

2015-2019 (current) Bachelor of Technology in Computer Science and Engineering at Indian Institute of Technology, Delhi.

CGPA: 9.64/10
Department Rank: 5

Scholastic Achievements

• Achieved **Institute Rank 2** amongst 850 students at the end of first year.(**CGPA: 9.941 after first year**)

• **Semester Merit Award** Consistently among the **top 7% students** in the computer science batch from 2015.

• **All India Rank 722** in Joint Entrance Examination (JEE Advanced-2015) amongst 150,000 candidates.

• Secured **54^{th}rank** in the Kishore Vaigyanik Protsahan Yojana (KVPY) 2014, SX Stream, amongst 100,000 candidates.

Relevant Courses

• **Computer Science**
Data Structures and Algorithms(COL106), Discrete Mathematical Structures(COL202), Analysis and Design of Algorithms(COL351), Artificial Intelligence(COL333), Computer Network(COL334), Digital Logic & System Design(COL215), Programming Languages(COL216), Computer Architecture(COL216), Design Practices(COP290), Introduction to Computer Science(COL100), Machine Learning(COL)*, Operating Systems(COL)*, Parallel and distributed programming(COL)*, Database Management Systems(COL)*, Theory of Computation(COL)*.

• **Mathematics and Electrical Engineering**
Abstract Algebra(MTL105), Probability Theory& Stochastic Processes(MTL106), Calculus(MTL100), Linear Algebra & Differential Equations(MTL101), Signals and Systems(ELL205), Introduction to Electrical Engineering(ELL100).

**Courses currently pursuing*

Acm Icpc 2016:

Team (Dark_Matter) **Ranked 196 out of the 2900 teams** who participated from all India, in online round.
Selected for **ACM ICPC Asia Amritapuri Onsite Regionals Contest-2016** and **Ranked 170** in Amritapuri site .

Technical Skills

• **Programming Languages:** C++, Python, C, JAVA, Ocaml, Prolog, VHDL, ARM Assembly Language, HTML.

• **Programming Environments:** Eclipse, Xilinx ISE Design Suite(VHDL), LaTeX.

Projects Done

• **Image morphing using triangulation** — Prof. Preeti Ranjan Panda
Introduction to Computer Science Course Project — (C++)

Wrote a program for image morphing using OpenCV. The images were triangulated using the input points. And

intermediate images were combined to make a video.

• Mobile phone tracking system Prof. Amitabha Bagchi
Data Structures and Algorithms course project (JAVA)

Made a mobile phone tracking system using a hierarchical call routing structure. Made the data structure for central server that routes the phone calls.

• A small search engine Prof. Amitabha Bagchi
Data Structures and Algorithms course project (JAVA)

Made a search engine which takes web pages as input and performs queries like finding words and phrases using Inverted Index.

• Currency Exchange Prof. Anshul Kumar
Digital Logic & System Design course project (VHDL)

Made a currency exchange in VHDL, it takes amount and input currency and outputs the denominations in output currency. Used 2×16 LCD for display.

• Solving Multiprocessor Scheduling Problem Prof. Naveen Garg
Research project (Python)

Implemented genetic algorithm for Multiprocessor Scheduling Problem. Made own algorithm which works better than genetic algorithm taking help from Graham's List Scheduling algorithm.