Prakhar Kumar

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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.
- \bullet Secured $\mathbf{54}^{th}$ 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).

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

Introduction to Computer Science Course Project

Prof. Preeti Ranjan Panda (C++)

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

^{*}Courses currently pursuing

intermediate images were combined to make a video.

• Multi threaded stock exchange

Data Structures and Algorithms course project

Prof. Amitabha Bagchi (JAVA)

Made a stock exchange which executed the input queries, and there are three independent threads which function independently.

• Mobile phone tracking system

Data Structures and Algorithms course project

Prof. Amitabha Bagchi (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

Data Structures and Algorithms course project

Prof. Amitabha Bagchi

(JAVA)

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

• Currency Exchange

Digital Logic & System Design course project

Prof. Anshul Kumar

(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.

\bullet Solving Multiprocessor Scheduling Problem

Research project

Prof. Naveen Garg (Python)

Made a . Used .