Saurav Kumar

Third Year Undergraduate

Computer Science and Engineering

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EDUCATION

EXAMINATION	UNIVERSITY	INSTITUTE	YEAR	CPI/%
Graduation	IIT Kanpur	IIT Kanpur	2016(expected)	8.1*/10.0
Intermediate(+2)	CBSE	Chinmaya Vidyalaya	2012	94.8%
Matriculation	CBSE	Chinmaya Vidyalaya	2010	10.0/10.0

* at the end of fourth semester.

SCHOLASTIC ACHIEVEMENTS

- **All India Rank 187** in IITJEE-2012 among 4.5 lakh students.
- Secured **All India Rank 97** in AIEEE-2012 among 1.2 million students.
- Qualified for **ACM ICPC** (International Collegiate Programming Contest) Amritapuri Regionals 2013.
- Shortlisted for the **Aditya Birla Scholarships** in 2012.
- Awarded **Best Student (Academics)** Award 2012 by Chinmaya Vidyalaya, Bokaro.
- Declared successful in **Indian National Mathematical Olympiad** (INMO) in 2011 and in 2012, conducted by Homi Bhabha Centre for Science Education (**HBCSE**).
- Secured National **top 1%** in National Standard Examinations in Physics(**NSEP**) 2011-12, Chemistry (**NSEC**) 2011-12 and Astronomy (**NSEA**) 2011-12 conducted by **HBCSE**.
- Secured **All India Rank 2** in 2009, **All India Rank 9** in 2010 and **All India Rank 9** in 2011 in National Cyber Olympiad (**NCO**) organised by Science Olympiad Foundation (SOF).
- Secured **All India Rank 10** in 2011 and **All India Rank 28** in 2012 in National Science Olympiad (**NSO**) organised by Science Olympiad Foundation (SOF).
- Awarded **DST Medal** in IGNOU-UNESCO Science Olympiad 2010.
- Awarded **KVPY (Kishore Vaigyanik Protsahan Yojna) Fellowship** in 2010 by Department of Science and Technology, Government of India.
- Awarded **NTSE Scholarship** based on National Talent Search Examination 2008 by NCERT, Government of India.

INTERNSHIP

- **Aurus Networks, Bangalore**

  SuperProfs Web Application and API Development   *May 2014 - June 2014*

  - Worked actively in the Product Team in development of website and related APIs for SuperProfs.com, an on-line market-place for video courses for competitive examinations.

  - Designed and developed listing of courses for sale, modal for description of selected course, feature for users to update profile information, in PHP framework Yii 2.0.

  - Developed portal for Professors to create courses, update profile and view transactions.

  - Developed feature for Course Review and Rating by users.

  - Developed related APIs in HAPI-JS to render data of users and courses, to the Ember Application in front-end for viewing lectures and posting discussions.

PROJECTS AND
DEVELOPMENTS

- **[Hardware Description Language] Implementation of Hilbert Transformation**
  Electronic Circuit Design Competition in Techkriti'14   *March 2014*
  Worked actively in a team of 4 to implement Hilbert Transform in Verilog HDL. Used
  Open Source tool *iverilog* to simulate the hardware, using *Cooley Tookey Algorithm*.
  Github Link: `http://github.com/2020saurav/hilbert`

- **[Web Development] Website for Crypto'13 - an online game**
  Link: *http://crypto13.comoj.com*   *September 2013*
  Created the web application and successfully conducted Crypto'13, a competitive event
  in Intra College Technical Festival *Takneek*. This involved works in HTML, PHP, JS,
  CSS and MySQL.

- **[Utility Application] ImageBucket**
  App development in Yahoo! HackU   *August 2013*
  The app queries local disk based on queries such as number of persons in an image,
  prominent color of the image, size and date. It uses OpenCV libraries in Python for
  face-detection and generates a database for each directory. The PHP based query end
  fetches fast and good results from the database.
  Github Link: `http://github.com/2020saurav/hacku13`

- **[Computer Vision and Robotics] Bot Automation using Raspberry Pi**
  Summer Project under Programming Club   *May 2013*
  Automated a bot with on-board web-camera to search a green ball and to reach near it
  using Raspberry Pi's GPIO, OpenCV libraries for image processing in Python.
  Github Link: `http://github.com/2020saurav/raspi`

SKILLS AND
INTERESTS

- ***Languages:*** C, C++, Python, Perl, Java, Bash, Verilog, Assembly
- ***Web Development:*** NodeJS, Yii, PHP, HTML, XML, CSS, MySQL, MongoDB
- ***Other:*** Android, Latex, GNU Octave, Git, OpenCV

KEY COURSES
UNDERTAKEN

Core:	***Breadth:***
Fundamentals of Computer Science	Multivariable Calculus
Data Structure and Algorithms	Linear Algebra
Computing Laboratory	Ordinary Differential Equation
Logic for Computer Science	Complex Analysis
Computer Organization	Introduction to Electronics
Discrete Maths	Probability and Statistics
Abstract Algebra	Introduction to Electrical Engineering*
Theory of Computation*	
Operating Systems*	

* to be completed in November 2014.

POSITIONS OF
RESPONSIBILITY

- **Web-Executive,** *Science & Technology Council, IIT Kanpur*   *April'13 - March'14*
  Development of SnT Blog, and updation of SnT Website.
- **Webmaster,** *Counselling Service, IIT Kanpur*   *May'13 - Apr'14*
  Maintenance and Updation of Counselling Service Website.
- **Secretary,** *Programming Club, IIT Kanpur*   *May'13 - Apr'14*
  Worked with a team of 17 for smooth conduction of various activities of the club and
  organizing workshops for freshmen for various events.