Yash Kumar Bansal
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EDUCATION

2013-2017 (expected)	Bachelor of Technology, Mechanical Engineering, Indian Institute of Technology, Delhi	GPA 8.37/10
2013	All India Senior School Certificate Examination, Central Board of Secondary Education	97.4%
2011	All India Secondary School Certificate Examination, Central Board of Secondary Education	GPA 10/10

RELEVANT COURSES

- Data Structures and Algorithms
- Discrete Mathematical Structures
- Introduction to Computer Science
- Probability and Statistics
- Calculus
- Linear Algebra and Differential Equations
- Engineering Mechanics
- Material Science
- Solid Mechanics
- Operations Research

SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank 88 in JEE Mains 2013 and 373 in JEE Advanced 2013 among 1.4 million students.
- Received Indira Award from the Chief Minister, Govt. of Delhi for outstanding performance in 10th and 12th.
- Awarded gold medal for securing State Rank 1 and International Rank 16 in 6th SOF International Mathematics Olympiad in class 12th.
- Scored 100% marks in Mathematics in AISSCE 2013.
- Felicitated with Student of the Year award by The Times of India for excellent all-round performance in class 11th.
- Selected for Kishore Vaigyanik Protsahan Yojana (KVPY) fellowship by the Department of Science and Technology, Govt. of India in 2012.

TECHNICAL SKILLS

- Programming Languages: C, C++, Java, Python, Latex, MATLAB
- Solid-modelling Tools: Autodesk Inventor, SolidWorks, PTC Creo

PROJECTS

- **Robominton - RoboCon 2015**   Sept 2014 - Feb 2015

  o Designed shuttle detection systems and service mechanism for badminton playing robots.
  o Conceptualized and implemented methods for detecting moving shuttle cock using laser intensity-based obstacle detection and trajectory tracing using computer vision.
  o Achieved accuracy of more than 99% in the service shot.
  o Awarded the 'Best Innovative Design Award' at RoboCon 2015.
  o Prepared the documentation for the electrical subsystems using Latex.

- **Rolling ball Simulation**   Nov 2013

  o Created a simulation of a hexagonal object rolling on a terrain in C++ on Linux platform using X11 library.
  o Pre-computed the path using matrices based translation and rotation to get precise maneuvering efficiently.

- **Simulation for Queuing Analysis**   Apr 2015

  o Implemented the simulation for M/G/C queuing system in Java.
  o Generic heap data structure was implemented in this project.

COMPETITIVE PROGRAMMING

- Secured 5th and 11th ranks in ACM ICPC Asia Regionals 2015 Online rounds - Amritapuri and Chennai, respectively.
- Secured 30th rank in ACM ICPC Asia Regionals - Amritapuri 2014.
- Ranked 12th nationally and 34th globally in CodeChef SnackDown 2015 among 8486 teams.
- Currently ranked first among IIT Delhi students and 30th nationally in CodeChef's monthly contest series 'CookOff'.
- Active participation in algorithmic programming on multiple online judges. User handle yash_15 on CodeChef, Codeforces and SPOJ.
- Select codes uploaded on GitHub user handle yash-15.

OTHER INTERESTS

Chess, Cricket, Football, Puzzle solving, Abacus, Dramatics