# Kunal Singhal

UG, Computer Science and Engineering
Indian Institute of Technology Delhi

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## Education

**Indian Institute of Technology Delhi** — New Delhi, India
*Bachelor of Technology* — *2012 - 2016 (expected)*
CGPA: 9.56

## Relavent Courses Taken

Computer Architecture
Data Structures
Calculas and Analysis
Programming Languages*
Game Theory#
Algorithms#
Design Practices in Computer Sciecnce
Descrete Mathematical Structures
Linear Algebra and Matrices
Artificial Intelligence*
Cryptography#
Digital Electronic Circuits
Combinatorics
Quantum Physics*
Number Theory*
Machine Learning#

*Pursuing in spring 2014 #Online Courses at coursera.org

## Awards, Grants & Honours

**International Olympiad in Informatics 2012** — July 2012
Indian Team Member

**International Physics Olympiad 2012** — July 2012
Silver Award

**Asian Physics Olympiad 2012** — May 2012
Silver Award

**Indian National Mathematics Olympiad 2011** — 2011
All India First Position

**Institute Silver Medal for Academic Excellenece** — Feb 2013
Given for obtaining highest CGPA at IIT Delhi

**IIT-JEE 2012 All India Rank 18** — May 2012
Got 18th rank among more than 500,000 students

**Aditya Birla Scholarship 2012** — Sep 2012
Given only to 15 engineering students all India

**OP Jindal Engineering and Management Scholarship 2012** — Sep 2012
Given to one student of each Year

**KVPY Scholarship 2011** — 2011
Scholarship given for encouraging schience students

**AIEEE 2012 All India Rank 19** — May 2012
Got 19th position among over 1 million students.

## Projects

- **3D bike race game** Prof. Subodh Kumar, 2012
  -Used OpenGL as graphics library.
  -A dedicated physics engine was programmed.
  -A database for High Scores is maintained.
  -Used frustum culling for enhanchning the game speed.
- **Assembly Emulator** Prof. Smruti Ranjan Sarangi, 2012
  -Supports ARM assembly and SimpleRisc Assembly codes.
  -Supports free flow of the code.
  -Python's high order techniques like lambda functions, maps and filters used for programming the emulator.
- **Social Network Simulation and Analysis** Prof. Subodh Kumar, 2012
  -Multiprocessing and multithread used to achieve simulation.
  -Iter process communication is eastablished by **Message Queues**
  -Final network after the simulation is stored as a graphml file.
  -In the analysis of the network, various queries such as shotest path, importance and clique size can be performed.

## Sport Programming

- Indian team member in **International Olympiad in Informatics, 2012**
- My team (team Angle) **ranked 9th in ICPC Amritapuri Regionals.** Best in IIT Delhi.
- Codechef handle : knsn1994
- TopCoder handle : knsn1994

## Designing and Coding Skills

| | |
|---|---|
| **Extensive** | PYTHON, C++ |
| **Intermediate** | HTML5, CSS3, JAVASCRIPT, C, PHP, LaTeX, JAVA, SQL, BASH, NUMPY |
| **Basic** | DJANGO FRAMEWORK, APPLE SCRIPT, STANDARD ML, BASIC, PERL |

## Community Involvement

- Representative at ACES (Association of Computer Engineers, IIT Delhi)
- Member of Electronics Club, IIT Delhi
- Class Convener at IIT Delhi

## Other Interests

- I have keen interest in human psychology and philosophy. I also write a blog: Phyryders.
- I love to play Guitar and Synth.
- I am a part of my hostel Dance Club.