

# Kunal Singhal

UG, Computer Science and Engineering  
Indian Institute of Technology Delhi

Ph: +91 9971490655  
kunal.cs112@cse.iitd.ernet.in  
<http://www.cse.iitd.ernet.in/~cs1120231>

## Education

### Indian Institute of Technology Delhi

*Bachelor of Technology*

CGPA: 9.56

New Delhi, India

2012 - 2016 (*expected*)

## Relevant Courses Taken

Computer Architecture	Design Practices in Computer Science	Digital Electronic Circuits
Data Structures	Discrete Mathematical Structures	Combinatorics
Calculus and Analysis	Linear Algebra and Matrices	Quantum Physics*
Programming Languages*	Artificial Intelligence*	Cryptography*
Probability Theory and Stochastic Processes*		Machine Learning#
Algorithms#		

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

## Awards, Grants & Honours

### International Olympiad in Informatics 2012

Indian Team Member

JULY 2012

### International Physics Olympiad 2012

Silver Award

JULY 2012

### Asian Physics Olympiad 2012

Silver Award

MAY 2012

### Indian National Mathematics Olympiad 2011

All India First Position

2011

### Institute Silver Medal for Academic Excellence

Given for obtaining highest CGPA at IIT Delhi

FEB 2013

### IIT-JEE 2012 All India Rank 18

Got 18th rank among more than 500,000 students

MAY 2012

### Aditya Birla Scholarship 2012

Given only to 15 engineering students all India

SEP 2012

### OP Jindal Engineering and Management Scholarship 2012

Given to one student of each Year

SEP 2012

### KVPY Scholarship 2011

Scholarship given for encouraging science students

2011

### AIEEE 2012 All India Rank 19

Got 19th position among over 1 million students.

MAY 2012

## 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 enhancing 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.
- Inter process communication is established by **Message Queues**
- Final network after the simulation is stored as a graphml file.
- In the analysis of the network, various queries such as shortest 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

<b>Extensive</b>	PYTHON, C++
<b>Intermediate</b>	HTML5, CSS3, JAVASCRIPT, C, PHP, L <sup>A</sup> T <sub>E</sub> X, JAVA, SQL, BASH, NUMPY
<b>Basic</b>	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: Tenet.
- I love to play Guitar and Synth.
- I am a part of my hostel Dance Club.