# Ketan Gupta

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## Education

## Indian Institute of Technology, Roorkee

Computer Science and Engineering Bachelors in Technology, 2015-2019 (Expected)

- CGPA: 8.23/10

## Delhi Public School, Ranipur

PCM + Computer Science 2001-2015

Senior Secondary – CBSE Overall Percentage: 96.8%

- Secondary – CBSE Overall CGPA: 9.8/10

## **Skills**

## Algorithms and Data Structures

- Selected for IOITC (International Olympiad of Informatics Training Camp).
- Selected for ACM ICPC Amritapuri Asia 2015 Onsite round.
- Frequent participant in Coding Contests held on Codechef, Topcoder, Codeforces, USACO, Hacker Earth, etc. (Handle: ketanhwr)
- Member of Programming and Algorithms Group (PAG) at IIT Roorkee.
- Selected for Indian Programming Camp, Mumbai organized by CodeChef.

### Web Development

- Web Developer at SDSLabs and WatchOut! News Agency.
- Experienced in LAMP Stack, XAMPP. Beginner in MEAN Stack, Ruby on Rails, ReactJS and AngularJS.
- Developed and managed a website to conduct a local programming contest in LAMP Stack.

## Game Development

- Experienced in Unity3D game engine and made some Indie games in it.
- Experience in C++ Game Development. Made PONG, Angry Birds and Bounce without using any physics engine or graphics engine.
- Made many web games using HTML5 and JavaScript. Hosted some on GitHub. (Username: ketanhwr)

## **Projects**

## Microsoft code.fun.do 2015

Successfully made an app for Universal Windows Platform within 24 hours which helps doctors in tracing a health problem in someone's family tree using graph theory. Selected for top 5 ideas among 200 teams.

#### Game on Graphs

Made a small game on graphs using basic graph theory for a school project. It was made using C++ and used basic graph theory concepts like BFS and DFS.

- Reflexio (https://github.com/ketanhwr/reflexio)

A web game based on reflection made purely in HTML5 and Javascript. Completed it for IndiaHacks Game Development Track. Finished among top 20 in around 10,000 participants.

http-server (https://github.com/ketanhwr/http-server)

A simple HTTP server written in C using UNIX sockets. Supports GET and HEAD requests.

CodeRed (<a href="https://github.com/abhaygupta97/codered">https://github.com/abhaygupta97/codered</a>)

A platform for holding simple coding contests. Build in LAMP Stack and uses MVC design pattern.

## **Relevant Courses**

Fundamentals of Object Oriented Programming Differential and Integral Calculus

Introductiont to Computer Science and Engineering Optimization Techniques

Data Structures

Object Oriented Analysis and Design

Computer Architecture

Signals and Systems Digital Logic Design

## Academic Achievements and Scholarships

- All India Rank 448 in Joint Entrance Exam Advanced (2015) among 150,000 candidates.

- All India Rank 271 and State Rank 1 in Joint Entrance Exam Mains (2015) among 1.5 million candidates.

- National Talent Search Examination Scholarship (NTSE) awardee.

- Qualified Regional Mathematics Olympiad (RMO) and National Standard Examination in Astronomy.

## **Areas of Interest**

- Algorithms and Data Structures

- Web Development
- Game Development
- Machine Learning
- Network Security
- Operating Systems
- Open Source Development

## **Technical Skills**

Programming Languages C/C++, Python, Java, JavaScript, PHP, C#, Perl, Ruby

Game Development Unity3D, Unreal Engine, HTML5/JS, C/C++, OpenGL

Web Development HTML, CSS, Javascript, Jekyll, jQuery, PHP, Ruby on Rails

Operating Systems Windows, Linux (Ubuntu and Fedora)

Utilites Vim, Git, GDB, Shell Scripting, Sublime Text, OpenGL, MATLAB

Platforms Arduino, Universal Windows Platform, Android

## Co-curricular Activities

- Music enthusiast. Completed a 5 year course in Classical Vocal Music.
- District Level Badminton and Table Tennis player.
- Painter and Sketcher. Participated successfully in many school and district level competitions.