

# Rishabh Singhal

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Undergraduate Computer Science completing 2nd Year of BTECH. Passionate about algorithms and data structures , and always excited to explore new skills , and striving for overall development.

## Previous Employment

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- **Carengrow** **Hyderabad, India**  
*Software Engineering Intern* *August 2018 - November 2018*  
Worked with a team to develop an application to work on the data provided to us, and process it using some algorithms to provide an automated output to the existing client application.

## Education

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### Academic Qualifications.....

- **International Institute of Information Technology, Hyderabad** **Hyderabad, India**  
*BTECH + MS Computer Science , 9.63 SGPA (1st Semester)* *2017-2022*  
9.29 SGPA (2nd Semester),  
9.25 SGPA (3rd Semester)
- **Laxman Public School** **New Delhi, India**  
*91.2% Class 12, 9.8 CGPA Class 10 (CBSE)* *2002-2016*

## Projects

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- **Mini Linux Shell:**  
A basic bash-like Linux Shell in C with system calls. It includes various basic functionalities of the Linux Shell like commands input, parsing, and execution, piping, foreground and background processes, signal handling.
- **Music Streaming [Web Application]:**  
CRUD based application with front-end using Python , Flask and SQL as a database. Used for streaming music, with features such as playlist, search bar . Responsive Web-Page , used HTML, CSS, JavaScript Bootstrap.
- **Terminal Based Space Invaders game:**  
Space Invader is a classic arcade video game created by Tomohiro Nishikado and released in 1978. This is a recreation of this iconic game in Python using Pygame. Object Oriented Concepts were used heavily.
- **Classical Mario Game [Terminal] :**  
A python application (terminal-based) that simulates a basic version of Mario. Concepts of Object Oriented Programming were used. Made in Python3 with libraries numpy and colorama.
- **Personal Webpage:**

Personal Webpage created using HTML, CSS , JavaScript , JQuery and Bootstrap from scratch. Designing part done using Adobe Photoshop.

- **2D game (Jetpack Joyride):**  
Created a basic version of Jetpack Joyride using c++, OpenGL 3.0. Using concepts of linear algebra.
- **Trivia-App:**  
Developed using ReactJs as frontend and go lang as backened. It's a quiz game where people can play quizzes with active login and signup.
- **Amazon-WebScrapper:**  
Using BeautifulSoup for scraping top selling books from amazon website and saving it in the form of csv.
- **Endless-Runner:**  
Subway surfer like game implemented using WebGL.
- **Ex- Tic-Tac-Toe Bot:**  
As a part of Artificial Intelligence Course. Developed a Bot implementing MiniMax ( Alpha-Beta Prunning ) Algorithm, Zobrist Hashing
- **Proxy-Server:**  
Developed a proxy server implementing blacklisting and authentication.
- **3D-Fighter Plane:**  
Developed in OpenGL 3.0 , a fighter plane game implementing different camera views, missiles and etc.

## Technical and Personal skills

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- **Programming Languages:** Proficient in: C, C++[ STL ], Python, MATLAB | Also basic ability with: Go Language , ReactJs , HTML , CSS , JavaScript , SQL , Neo4j, OpenGL3.0, Tensorflow, Keras

## Achievements

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- Awarded Dean's List for academic excellence for the year 2017-2018.
- Ranked 1623 in JEE Advanced out of 150,000 who participated.
- Ranked 1551 in JEE Mains out of 1.2 million who participated.
- Qualified Kishore Vigyanik Protsahan Yojana (KVPY) SX category 2016-2017.
- Ranked 3 in India in contest CODESPREE 2018 hosted on codechef.
- Qualified for Online Round 1 of Google Code Jam 2018.
- Qualified Microsoft Code-Fun-do.

## Courses

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- Algorithms, Computer Programming, Data Structures, Introduction to Databases, Linear Algebra, Graph Theory, Group Theory, Digital Logic and Processors, Computer System Organisation, Structured System Development and Analysis, Science 1, Probability Theory, Complex Analysis, Artificial Intelligence, Computer Network, Engineering System, Graphics, Digital Signal Application and analysis, Intro to Tensorflow (coursera)