

# AANSHUL SADARIA

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## EDUCATION

<b>International Institute of Information Technology Hyderabad</b>	2016 - 2020
Bachelor of Technology	Overall GPA: 9.86/10
Computer Science Engineering	
<b>Edunova Science Higher Secondary School, Ahmedabad</b>	2015 - 2016
Gujarat State Education Board (HSC)	Percentage: 96.67
<b>Saint Kabir School, Ahmedabad</b>	2003 - 2015
Gujarat State Education Board (SSC)	Percentage: 92

## WORK EXPERIENCE

<b>Virtual Lab, Hyderabad</b>	July 2017 - November 2017
<i>Undergraduate Developer</i>	
<ul style="list-style-type: none"><li>· Worked in a team of three people under a mentor and a client as a part of SSAD &amp; Project course</li><li>· Worked to remove the hard coded structure into a flexible framework to simulate chemical experiments</li><li>· Designed in object-oriented JavaScript from Flash (<a href="https://github.com/newbass/lab-authoring-project">github.com/newbass/lab-authoring-project</a>)</li></ul>	

## MAJOR PROJECTS

<b>SSAD &amp; Project</b>	March 2017 - April 2017
<i>Undergraduate Developer</i>	
<ul style="list-style-type: none"><li>· Built a money sharing and bill splitting application to ease the flow of money between groups</li><li>· Worked in a team of three people as a front-end developer and building back-end relations and solutions</li><li>· Worked on enhancing UI and optimizing algorithm (<a href="https://github.com/newbass/splitwise-major-project">github.com/newbass/splitwise-major-project</a>)</li></ul>	
<b>Digital Signal Analysis &amp; Applications</b>	April 2018
<i>Algorithm Designer</i>	
<ul style="list-style-type: none"><li>· Designed an efficient algorithm to translate a given two-channel PPG signal and three-axis acceleration signal into ECG signal (<a href="https://github.com/newbass/PPG-to-ECG-DSAA">github.com/newbass/PPG-to-ECG-DSAA</a>)</li></ul>	

## MINOR PROJECTS

<b>Extreme Tic-Tac-Toe (Artificial Intelligence)</b>	January 2018 - February 2018
<ul style="list-style-type: none"><li>· Designed a bot to contest extreme tic-tac-toe (4x4x4x4) tournament in a team of two.</li><li>· Applied min-max algorithm over alpha-beta pruning and some competent heuristics.</li><li>· Ended the tournament as finalists (<a href="https://github.com/newbass/extreme-tictactoe-4x4x4x4-AI-Bot">github.com/newbass/extreme-tictactoe-4x4x4x4-AI-Bot</a>)</li></ul>	
<b>Bounce-the-Ball 2D (Graphics)</b>	January 2018 - April 2018
<ul style="list-style-type: none"><li>· Built Bounce-the-Ball 2D game in OpenGL, using real world physics and trajectories using concepts of linear algebra (<a href="https://github.com/newbass/bounce-the-ball-opengl">github.com/newbass/bounce-the-ball-opengl</a>)</li></ul>	
<b>Legend of Zelda 3D (Graphics)</b>	January 2018 - April 2018
<ul style="list-style-type: none"><li>· Built Legend of Zelda 3D game in OpenGL, added motion and perception using projection angles and various camera views (<a href="https://github.com/newbass/legend-of-zelda-3D-OPENGL">github.com/newbass/legend-of-zelda-3D-OPENGL</a>)</li></ul>	

### **Tunnel Race 3D (Graphics)**

January 2018 - April 2018

- Built Tunnel Race 3D game in WebGL, applying illumination model and Phong's reflection model, by using vertex and fragment shaders  
([github.com/newbass/tunnel-race-3D-WEBGL](https://github.com/newbass/tunnel-race-3D-WEBGL))

### **Bomberman (SSAD & Project)**

January 2018 - February 2018

- Built Bomberman version game in Python OOP, using inheritance of classes along with boosts and multiple levels using incremental integration  
([github.com/newbass/bomberman-without-pygame](https://github.com/newbass/bomberman-without-pygame))

### **QuizApp (SSAD & Project)**

January 2018 - February 2018

- Built QuizApp having multiple genres, sub genres along with availability of life lines and unique pointing system, developed on Ruby on Rails framework  
([github.com/newbass/Ruby-On-Rails-QuizApp](https://github.com/newbass/Ruby-On-Rails-QuizApp))

### **Socket Programming (Computer Networks)**

January 2018 - April 2018

- Simulated client-server communication by building client side and server side socket programming code and handling network errors dynamically  
([github.com/newbass/Socket-Programming-Networking](https://github.com/newbass/Socket-Programming-Networking))

### **Proxy Server (Computer Networks)**

January 2018 - April 2018

- Built proxy server code along with caching facility and maintaining logs to check consistency and concurrency control by using semaphores  
([github.com/newbass/Proxy-Server-Caching-Networking](https://github.com/newbass/Proxy-Server-Caching-Networking))

## **TECHNICAL STRENGTHS**

### **Computer Languages (Proficient)**

### **Computer Languages (Familiar)**

### **Software & Tools**

C/C++, Python, SQL, JavaScript, HTML, jQuery

MATLAB, CSS, AJAX, Ruby, Flask, UML, Ruby on Rails

Excel, PowerPoint

## **RELEVANT COURSES**

### **Core Courses**

Computer Programming

Data Structures

Algorithms

IT Workshop I

IT Workshop II

Artificial Intelligence

Operating Systems

Data warehousing and Data mining (Current)

(Note: Most of the technical(programming) assignments are available on [github.com/newbass](https://github.com/newbass))

### **Core Courses**

Mathematics I (Graph Theory)

Mathematics II (Linear Algebra)

Mathematics III (Probability and Statistics)

Graphics

Digital Signal Analysis and Application

Computer Networks

SSAD and Project

Database Systems (Current)

## **ACHIEVEMENTS**

- Got mentioned in the Deans List 1 in both first and second semester
- Ranked 133 (top 0.02%) in JEE Main Entrance Exam
- Ranked 1257 (top 1%) in JEE Advance Entrance Exam
- Codechef Rating : 2002 (5-Star Rating) & Codeforces Rating : 1604 (Expert Level)
- Won the Best Actor and Best Writer Award in school dramatics

## **POSITION OF RESPONSIBILITY**

### **Captain (2011-2012) and Vice Captain (2010-2011)**

- Successfully led my house to the Most Energetic House both the times