Satvik Ramaprasad

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Education

August 2016 Present	International Institute of Information Technology - Bangalore (IIIT-B)
	> Integrated M.Tech. in **Computer Science**, 5th Semester
	> Cumulative GPA: **3.90 / 4.00**
2012 2016	Sri Kumaran Children's Home
	> CBSE - 12th Board Examination (2015-2016) Board Percentage - **96.8 %**
	> CBSE - 10th Board Examination (2013-2014) CGPA - **9.8/10**

Skills

Python/C++/Java, Database Systems, Web Development, Project Management, Business Analytics, Computer Graphics, Linux and Production Systems

Projects

CircuitVerse | Founder
CircuitVerse.org   Feb 2017 - Present

CircuitVerse is an easy to use online digital circuit simulator. It provides a platform to create, share and learn digital circuits across the world. I am the primary developer and maintainer of this open source project. Currently the platform has over 500 registered users and over 1600 saved circuits.

`JavaScript` `Ruby On Rails` `PostgreSQL` `Data-structures and Graph Algorithms` `Simulation` `Digital Logic`

BMTC - Cost Optimisation Project | Project intern
Jan 2018 - March 2018

Project under Prof. V N Muralidhara. The project involved finding ways to reduce the cost for BMTC by making the shift schedule more efficient.

`Python` `Data-structures and Algorithms`

C++ Text Prediction and Auto correct Project | Primary Developer
April 2016

Implementing trie data structure to efficiently store and retrieve millions of words in a datafile. Text prediction and autocorrect algorithms were implemented over the trie data structure using heuristics such as popularity/frequency of word, hamming distance etc.

`C++` `Data-structures and Algorithms`

LightXLab | Primary Developer
Lightxlab.zense.co.in   Jan 2014 - Feb 2016

LightXlab is an interactive program to simulate ray optics. It involves solving equations, geometry and physics.

`Flash` `Geometry` `Physics` `Graphics` `Simulation` `Math Equations`

Othello AI Game | Primary Developer
satu0king.github.io/othello   Jan 2014 - Feb 2016

Classic Othello Game with good AI. 3 Different modes of difficulty, each adding a layer of logic.

`Flash` `Logic` `math` `Graphics` `Game Development`

LED-Cube - Animation Code Generator | Primary Developer
satu0king.github.io/ledcube3d   Jan 2014 - Feb 2016

Simple Animation Editor to design LED - Cube Frame Animations. The tool generates arduino compatible C code which can immediately be run using an Arduino.

`Flash` `Multiplexing` `Logic` `Arduino` `C` `Graphics`

Web Board | Project Mentor
Webboard.zense.co.in   May 2018 - Present

Mentoring a team @ Zense with the project. Web Board is an online platform which will allow teachers to use the smart boards in class online. The notes are saved automatically and shared with all students for future reference.

`JavaScript` `Ruby On Rails` `mysql` `Data-structures and Algorithms` `HTML5 Canvas`

IIITB - PhotoGallery | Primary Developer
Photogallery.IIITB.ac.in   April 2018 - May 2018

IIIT-Bangalore PhotoGallery was developed to showcase the various events and activities within Campus by the various clubs, organisations and committees. This consists of groups and albums. It supports admins and super admins, allowing differential upload privileges.

`Ruby On Rails` `Javascript` `Bootstrap` `mysql`

💼 EXPERIENCE

HOMIGO | FULL STACK DEVELOPER
🔗 Homigo.in   JUNE 2018 - AUGUST 2018

Homigo is a flat sharing platform to solve rental problems (similar to Airbnb). My internship involved setting up business analytics, third party integrations and meeting several feature requirements.

`JavaScript` `Ruby On Rails` `postgresql` `Metabase` `Bootstrap`

ZENSE | PROJECT AND GROUP COORDINATOR
🔗 Zense.co.in   JAN 2017 - PRESENT

Zense is a Software Developer Club of IIIT-Bangalore. I coordinate with the various teams on several projects.

`Development` `DevOps` `Project Management`

DIGITAL LOGIC DESIGN | TEACHING ASSISTANT
JAN 2018 - MAY 2018

I was the TA for Digital Design Course for the 2017 batch.

`Digital Logic Design` `Teaching`

💻 COURSE PROJECTS

HUFFMAN COMPRESSION FOR TEXT FILES
1ST SEMESTER

Huffman's algorithm can be viewed as a variable-length code table for encoding a source symbol (such as a character in a file). The algorithm derives this table from the estimated probability or frequency of occurrence (weight) for each possible value of the source symbol.

`C` `Huffman Compression` `File Handling`

GRAPHS PLOTTER WITH BUILT IN INTERPRETER   🔗 github.com/satu0king/Python-Interpreter-With-Graphs   1ST SEMESTER

Simple interpreter which can do basic maths operations. It can also plot basic functions.

`Python` `Graphs` `Parsing` `Expression Evaluator`

IMAGE PROCESSING PROJECT
🔗 github.com/satu0king/ImageProcessing   3RD SEMESTER

Developed library for various image filters from scratch

`C++` `Image Processing`

🏆 ACHIEVEMENTS

> **Dean's Merit List**
> I am in the Dean's Merit List 2017 and 2018 for academic performance. Received Merit Scholarship for first and second year.

> **Infin8 - Competitive Programming**
> I bagged the first place in the college.

> **ACM - ICPC 2017**
> Our team scored second place in the college with a national rank of 361.

> **Snackdown - 2017**
> Qualified for the final Elimination round.

📖 RELEVANT COURSES

> **Algorithms** - Data Structures and Algorithms, Design and Analysis of Algorithms
> **Math** - Probability and Stastics, Linear Algebra, Calculus, Discrete Maths
> **Systems** - Digital Logic Design, Computer Architecture, Systems and Signals
> **Data Science** - Machine Learning, Database Systems
> **Others** - Computer Networks, Software Engineering, Automata Theory

⭐ INTERESTS

> **Entrepreneurial Interest** - very passionate and curious in knowing how companies operate in general and what decisions and factors lead them to success.

> **Product Development** - Interested in general technology based products with a special focus on educational products and their impact on the current education system.

> **Research interest** - Inclined towards research in simulation models, rendering and data science.