

## EDUCATION

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**International Institute of Information Technology (IIIT-H)**, Hyderabad, India  
*Bachelor of Technology in Computer Science and Engineering*

September 2020 - Present  
GPA: 7.96/10

## PROJECTS

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### Temperature Tracking

- Created an android app for users to monitor their temperature readings using an external device.
- The app was created by a team of 4 members for an external company as part of the Design and Analysis of Software Systems course in IIIT-H.
- Development was done using React Native, ExpressJS, MongoDB, and NodeJS, and following AGILE methodology.

### Nautica

- Created a 3D game using WebGL and ThreeJS involving a ship travelling the ocean, collecting treasures, and destroying enemy ships

### Shell

- Created a Linux shell from scratch using C
- Added functionality for most commonly used commands (cd, ls, etc.), along with support for foreground and background processes and signals

### xv6 OS

- Tweaked the xv6 operating system by adding system calls - one to trace the systems calls made by a command, another to change the priority of a process
- Added two new schedulers - First Come First Served (FCFS) and Priority Based Scheduling (PBS)

### Canteen Portal Website

- Created a canteen portal website using MERN stack
- Packaged and deployed the website using Docker

### Bitcoin Simulator

- Designed a bitcoin simulator using C (group project - 5 people)
- Simulator supports multiple users, with transactions being stored as a blockchain, complete with hashing for security and verification

### Algorithms Website

- Created a website as a guide to algorithms for beginners using HTML, CSS, and JavaScript

### Parliament Database

- Implemented a miniature database based on the Indian Parliament System using MySQL and Python (group project - 3 people)
- Added functionality for common DBMS operations, while also handling relations between the tables so as to properly simulate a parliamentary system

### Card game

- Designed a terminal-based card game called 99 using C++
- Game is played by a single user against the computer. Added full functionality for the computer to take the best possible move at each step

## TECHNICAL SKILLS AND RELEVANT COURSES

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**Programming Languages:** C, C++, Python, HTML, CSS, JavaScript, SQL, Bash

**APIs and Libraries:** OpenGL, WebGL, ThreeJS, ReactJS, Express.js, Node.js, MongoDB, React Native

**Relevant Courses:** Computer Graphics, Design and Analysis of Software Systems, Machine and Data Learning, Data Structures and Algorithms, Computer Systems Organization, Algorithm Analysis and Design, Operating Systems and Networks, Data and Applications