

# AYUSH SHAH

B.E. - Information Technology - PICT, Pune

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## Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
Bachelor of Engineering	Pune Institute of Computer Technology, Pune	9.0 (Current)	2018 - Present
Senior Secondary	State Board	80.3%	2018
Secondary	State Board	94.3%	2016

## Experience

### Programmers Army

Jan. 2021 – Feb. 2021

Frontend developer Intern

Pune, Maharashtra

- Worked on registration i.e login/SignUp page. Used ReactJs for basic Layout and Material-UI and bootstrap for UX.
- Used Firebase for user authentication and Redux for state management across all components.
- Explored mongoose, a utility package which simplifies the use of MongoDB and provides an API for easier queries.

### HackerRank, Leetcode

Aug 2018 – Present

Problem Setting (self)

Freelance

- Prepared multiple competitive programming problems on these platforms based on math, dynamic programming and algorithms in general.

## Projects

### In-Browser File Manager | ReactJS and Redux, Firebase

Apr. 2021 - Present

- Motivation - There were no packages available in React to easily implement a file-manager. Those which were there were complex to use.
- A File manager which is built using ReactJS. It gives you the capability of performing all CRUD operations on the files fully online.
- Using Firebase RTDB for storing the files and folder structure. Used recursive react components for rendering and recursion for doing operations on the files and folder.
- Used user authentication for independent file creation, react-routers for easy redirection, redux for user and file state management across all components.
- Planning to make it a utility package for ReactJS.

### Online Labs | ReactJS and Redux, Firebase, webrtc and websockets, NodeJS and various other packages Apr. 2021 - Present

- Motivation - During the pandemic it has become difficult for teachers to take programming labs online. Online Lab would let you take these labs as if teachers were in college. It will be possible to give attention to each and every student.
- Idea is to make an online lab system capable of creating rooms, one-on-one video conferencing, local and broadcast chat, online file-saving, and compilation, **collaborative editor**.
- One-on-one video conferencing, chatting feature is implemented using webrtc and websockets. Collaborative editor can be implemented using algorithm called CRDT or ODT.
- Online file management service is self-built.

### Algorithm visualizer | HTML, CSS, p5js

Oct. 2020 - Oct. 2020

- p5js is a library which makes implementing canvas and manipulating objects easier.
- Created an algorithms visualizer for people having a hard time to understand how an algorithm works.
- Currently it has visualizers for the following algorithms : Convex Hull (using brute force method), minimum spanning tree(Prims), Binary Search Tree, Travelling Salesperson problem (brute force).

## Achievements

- CodeChef [🔗](#) Rated 4★ - Achieved **Global Rank 197** in CodeChef June Lunch-Time Div.1 2020 [🔗](#)
- Google Kick Start Round H 2020 - Achieved **Global Rank 928** among more than 10K participants.
- ACM ICPC 2019** - Ranked 130 in Preliminary Online Round (Kanpur) [🔗](#)
- Achieved **Rank 1** in EnCode1.0 held by KIIT IoT Labs
- Achieved **Rank 3** in the national competitive programming competition AlgoWar held by COEP CSI Student Chapter
- Achieved **Rank 1** in Codeathon held by Manipal University of Jaipur (MUJ).
- Solved more than 1500 competitive programming problems on various platforms like Codeforces, CodeChef, HackerRank, AtCoder and HackerEarth. [🔗](#)
- Amongst top 1500 in MH-CET (2018) with more than 2 lakh candidates.

## Technical Skills

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**Languages:** C, C++, Javascript, SQL and NoSQL DB, Bash

**Tools:** Firebase FireStore i.e RTDB, Firebase authentication, Developer tools

**Technologies/Frameworks:** NodeJS, ReactJS with the underlying technologies like Redux, Context API, Routers etc.

**Additional:** Data Structures, Algorithms, Math,

## Relevant Coursework and Certificates

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- **Computer Science** - Advanced Data Structures, Algorithms, Database Management Systems, Object Oriented Programming, Discrete Structures, Graph Theory, Software Development.
- Postman Student Expert and certificate of Algorithmic Toolbox by UC San Diego