

#### COMPUTER SCIENCE AND ENGINEERING STUDENT

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### **Education**

#### National Institute of Technology (NIT), Hamirpur

Himachal Pradesh, India

B.Tech and M.Tech (Dual Degree) in Computer Science and Engineering (CGPA 8.83)

August 2017 - May 2022

- · Courses: Data Structures, Algorithms, Operating System, Software Design, Computer Networking and Distributed Computing
- Completed Udemy Bootcamps in MEN Stack, MySQL, Git and Github.

#### **Honors & Awards**

2021	Published Research Paper on TBIT in International Journal of Information Technology	Springer
2021	Expert at Codeforces with highest rating of 1601 (top 0.07% in India) (@kartikey30)	Codeforces
2021	Four Star at Codechef with highest rating of 1874 (top 0.06% Internationally) (@kartikey30)	Codechef
2017	Secured 100/100 marks in Mathematics Intermediate Examinations conducted by CBSE	GOI, India
2015	NTSE Scholar, awarded by the Ministry of Education	GOI, India

# Work Experience \_\_\_\_\_

Source.One Pune, India

SDE Intern May 2021 - Present

- Designing a Data Analytic Website as an internal tool using MEN (mongo-express-node) tech stack.
- Coordinating with the Business Team to understand the use case of Data analytic portal.
- Working in a team of 5 engineers using test-driven development.

FAH Technologies Remote, Singapore

SOFTWARE ENGINEER INTERN

August 2020 - September 2020

- Designed REST API for user on-boarding, scalable to over 15,000 requests per second.
- Designed and documented the API on Swagger notebooks using Open-API3 Format.
- Configured Backend on Docker container.

NIT Hamirpur Himachal Pradesh, India

RESEARCH INTERN May 2020 - July 2020

- Designed a new tree based Data Structure and the algorithms to build and perform queries on it.
- The tree can handle all types of range-based queries for transitive functions while providing scalable solutions.
- Reduced Time complexity for query operations by more than 900% while reducing space complexity by 25% for storing data.
- Authored a research paper on the tree, that is published by the International Journal of Information Technology (IJIT), Springer Publications a SCOPUS Indexed Journal.

## **Projects**

#### **Fingerprint Authentication System**

Data Indexing

January 2021

- C++, C, Python, Bash Script, Latex and Git
- Built an authentication system from scratch using wavelet tree for indexing.
- The authentication system is based around fingerprints rather than passwords, making it inherently secure.
- Improved Data retrieval time by 80% compared to hashing.
- Authored a research paper on the authentication system that is under publication.

Yelpcamp Full-Stack Website

HTML, CSS, Bootstrap, NodeJS, ExpressJS, Mongo, Git and Heroku

May 2020

- Made a clone of Yelp, as a website of reviews.
- Implemented user-authorization and back-end API, having full CRUD functionality.
- Deployed the code on Heroku, while hosting database on MongoDB Atlas cluster.

Color Ninja Frontend Webapp

HTML, CSS, BOOTSTRAP, JAVASCRIPT AND GIT

May 2020

- Made a gaming app using HTML and CSS.
- The app provides the user with three percentages of red, green and blue color.
- User then have to determines the color that will form after mixing the three colors, from a given palette of colors.