

AAYUSH A CHATURVEDI

B.Tech. Electrical Engineering
UG(IV Year I Semester)
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Registration No: B.Tech./EE/16115002/2020

Indian Institute of
Technology
Roorkee



Area of Interest

Data Structures, Design and Analysis of Algorithms, Mathematics, Sport Programming

Education

| Year | Degree/Examination | Institution/Board | CGPA/Percentage |
|------|--------------------|---|-----------------|
| 2019 | B.Tech. 3rd Year | Indian Institute of Technology, Roorkee | 8.316 |
| 2016 | Twelfth | St. Mary's Convent Senior Secondary School (CBSE) | 92.6 % |
| 2014 | Tenth | St. Mary's Convent Senior Secondary School (CBSE) | 10.0 |

Internships

Student Trainee | Samsung R&D Institute, India-Bangalore Pvt. Ltd.

17 May 2019 - 12 July 2019

- Authored a research paper titled, "**Optimal Placement of UAVs in Space for Reducing the Refractive Effect of Tropospheric Ducting on Terrestrial UEs**" along with a team of three employees. The paper has been submitted for publication and is currently in review.
- The paper proposes a mathematical algorithm for reducing the signal distortion due to a atmospheric effect, a problem which had been reported by many telecom industries across the globe.

Technical Content Writer | GeeksForGeeks

22 June 2018 - 22 July 2018

- The internship included working on various topics of Data Structures, Algorithms and C++ library functions and writing Articles on major topics that were not yet present on the website. Wrote more than ten articles on various topics that have been published on the website.
- Awarded as the "**Geek of the Month**" for being the **best student intern**.

Projects

C++ Implementation of various Matrix Operations | Dept. of Electrical Engineering

January 2019 - April 2019

- A research based project that aimed at developing C++ libraries of important matrix operations like multiplication, inverse, integral and fractional power, and eigenvalues and eigen vectors.
- These libraries were later used for the application of matrices in topics related to Electrical Engineering.

The Nine Coins and a Key Game | Web Design and Development Proficiency

January 2018 - March 2018

- Developed a fully functional HTML5 game using the Phaser Library in JavaScript. The game has nine different levels of increasing difficulty. Wrote the code for the functionality as well as the design of each level.

Awards / Scholarships / Academic Achievements

- All India Rank 109 in Kishore Vigyan Prothshahan Yojana, KVPY 2015.
- Provisional INSPIRE Fellowship from the Department of Science and Technology (DST).
- All India Rank 1671 in JEE-Advanced, 2016.
- Honorable Mention in ACM ICPC Asia Region Kolkata-Kanpur Online Contest 2017.

Skills

| | |
|--------------------------|---|
| Computer languages | C, C++, HTML5, CSS |
| Software Packages | Sublime Text, Android Studio, Netbeans, Latex, Git, MATLAB. |
| Additional Courses Taken | Algorithm Specialisation, consisting of four courses on Algorithms and Data Structures by Stanford University. Overall grade secured was 96.5%. |
| Minor/Honours Courses | Completed the following courses as a part of Minor Specialisation in Computer Science: CSN-102 Data Structures, CSN-341 Computer Networks, CSN-353 Theory of Computation. |
| Languages Known | English (SRW) , Hindi (SRW) |

Positions of Responsibility & Extra Curriculars

Student Mentor | Student Mentorship Program (SMP)

July 2018 - May 2019

- Mentored a group of seven first year students for the entire academic year.
- Held multiple monthly meetings in the campus to ease the way of the mentees through the first year.
- The freshmen were mentored by providing comprehensive first hand experiences, guidance on various academic issues, campus activities, and career prospectus that can be explored.

Under Graduate Teaching Assistant | Academic Reinforcement Program (ARP)

January 2018 - April 2018

- UG TA for the departmental course Network Theory EEN 102.
- Responsible for clearing doubts, explaining concepts, and helping to build up basics of the course of the first year students outside of their regular class schedule.

Member of Techno-creative Cell | National Service Scheme (NSS IITR)

July 2016 - May 2017

- Designer at the Technocreative Cell. Responsibilities included designing and creating artwork like posters, banners, magazine pages using Adobe Photoshop and Adobe Illustrator, along with participating and volunteering at all NSS Events.