ARYAN GUPTA | 21AE10009

AEROSPACE ENGINEERING(B.Tech 4Y)

MINOR in COMPUTER SCIENCE & ENGG. (B.Tech 4Y) MICRO SPL. in ARTIFICIAL INTELLIGENCE AND APPLICATIONS

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| --- | --- | --- | --- |
| **EDUCATION** | | | |
| **Year** | **Degree/Exam** | **Institute** | **CGPA/Marks** |
| 2025 | B.TECH | IIT Kharagpur | 8.06 / 10 |
| 2020 | CLASS XII,CBSE | DECENT SCHOOL | 85% |
| 2018 | CLASS X, CBSE | R.B.T VIDYALAYA | 92.2% |
| **PROJECTS** | | | |

# Hospital Management System | Self Project *[June’23]*

* This project utilized C++ **classes** and **arrays** to develop a comprehensive and efficient system for handling patient and staff records, scheduling appointments, and other administrative tasks within a hospital environment

•Incorporated **file handling** techniques to enable persistent storage and retrieval of data, facilitating login and logout functionality within the system and providing seamless access to patient information and medical histories

•Implemented a **password-change** and **password-creation** feature which providing users with a user-friendly experience

•Developed a secure session management by employing a **logout button** for strong user authentication and **data privacy**

•Conducted thorough **testing** and employed **error handling** mechanisms to ensure system's reliability and robustness

# Implemented a Dictionary in C++ | Self Project *[Sept’23]*

* Developed a dictionary software using the **Trie data structure** in **C++**, showcasing a robust and efficient implementation
* Showcased expertise in creating an responsive interface for users to **efficiently retrieve information** from the dictionary

•Achieved superior performance in **anagram word searches**, showcasing the ability to tackle complex problems

# Full Responsive Hospital Website | Self Project *[April'23]*

•Developed a fully responsive hospital website utilizing **HTML** for structure, **CSS** for styling and layout, and **JavaScript** for interactive elements, ensuring optimal user experience on different screen sizes

•Implemented a booking system using PHP and SQL,which allow users to schedule their appointments as per their comfort

•Implemented appointment booking with **data validation** and **error handling** which ensured a user-friendly experience

•Conducted thorough **testing** and **debugging** to ensure optimal functionality and resolve various issues present in it

•Employed Git, a version control system, for efficient code management, seamless collaboration with team members, and hosted the code on **GitHub** for streamlined accessibility

# Build an Efficient Implementation of Relational Database Management System *[Oct'23]*

* Leveraged principles of **OOPs** to design and implement a robust **Relational Database Management System** using C++
* Developed a **user-friendly database management software** with an emphasis on ease of use and debugging capabilities
* Maximised the potential of **C++** to build a high-performance RBDMS, showcasing a deep understanding of the language's capabilities

**AWARDS AND ACHIEVEMENTS**

•Secured an **All India Rank** of **5951**,under top **4%** amongst more than **2.5 lakh** eligible candidates in **JEE Advanced 2021**

•Secured an **All India Rank** of **8368,** under top **0.9%** amongst more than **9,20,000** eligible candidates in **JEE Mains 2021**

•Finalist in **Webathon** event at Kshitij,techno-management fest, IIT Kharagpur, competing against **200+** teams

* Achieved a peak rating of **1206 (Pupil)** on **Codeforces** and **1553** on **LeetCode**

**COURSEWORK INFORMATION**

**Programming:** Programming and Data Structures (Theory and Lab) | Data Structures and Algorithm by Coding Ninjas **Mathematics:** Advanced Calculus |Linear Algebra | Numerical and Complex Analysis |Transform Calculus| Numerical Solution **Miscellaneous:** Basic Electronics | Introduction to Flight Vehicle Controls | Dynamics For Aerospace Engineers | Low Speed Aerodynamics | Mechanics of Flight | Aerospace Structural Analysis | Electrical Technology | Physics Of Waves

**POSITIONS OF RESPONSIBILITY**

# Secretary-Volleyball |Nehru Hall Of Residence | IIT Kharagpur *[Aug’22-Apr’23]*

•Assisted the **General Secretary of Sports and Games** in **budget** management while providing support to team members

•Organised **Intra-Hall Volleyball** competition getting participation of **18** teams which eventually increased hall spirit

•Responsible for maintaining **inventory**,daily training and practice of more than **30** students of Nehru Hall of Residence

**SKILLS AND EXPERTISE**

**Programming Languages**: C++, C, Python, HTML, CSS, Javascript

**Softwares/Tools:** Git, GitHub, Matlab, MS Office, Figma, Vs Code, FreeCad,

**Frameworks/Libraries:** Standard Template Library, Reactjs, Nodejs, ExpressJs, MongoDB, PHP

**EXTRA CURRICULAR ACTIVITIES**

•Member of **National Sports Organization Health and Fitness** from December 2021 - April 2023, to spread awareness towards healthy living,participated in various activities like health and fitness awareness programme

•Member of **Volleyball** team and **choreography** team of Nehru Hall of Residence in Inter hall General Championship 2022-23

•Secured **2nd** position out of more than **200** students in the **G.K Talent Hunt** competition organized by the school in 2016

* Cleared the **NTSE(National Talent Search Examination)** Stage 1 in 2018, which is one of the oldest exam conducted by NCERT

!Self declared by the student, CDC could not verify the relevant documents