ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Electrical Engineering (Power and Automation)	Indian Institute of Technology Delhi	7.032
2018	RBSE	V N Sr Sec School, Kota	87%
2016	RBSE	Bal Sr Sec School, Kota	86.33%

PROJECTS

- **Dynamic Memory Allocator for Operating Systems** | Prof. Rahul Garg   (Oct'2020-Nov'2020)
  - Developed an efficient system to **allocate/free** memory as per requirement in a cost-efficient and time-efficient manner
  - Implemented DLL, BST data structure with First Split Fit technique to keep track of free and allocated memory
  - Programmed AVL tree data structure with Best Split Fit technique to improve the time and cost-efficiency
- **Graph Topology Analysis and implementation** | Prof. Rijurekha Sen   (Nov'2020-Dec'2020)
  - Created a **bi-directed graph** using two data sets having data regarding storylines of characters in Marvel comics
  - Programmed **customized sorting algorithms** & **DFS** to segregate independent subgraphs in sorted order for analysis
  - Implemented functions for **graph analysis** to find the average number of characters associated with each Marvel character
- **Burger shop simulation**: Heap Data Structure   (Feb'2022)
  - Designed a simulation capable of performing multiple queries like customer arrival, order time, and waiting time estimations
  - Organized parallel workfow from customer end to chef end to achieve minimum waiting time for a customer in queue
  - Implemented Data Structures like **AVL trees, Heaps, Queues and Stacks** to perform each operation efficiently
- **Taxi Allocation Problem**: Data Structure and Algorithm   (Nov'2021)
  - Modeled real-life taxi allocation problem using **graph** data structure, service finds the nearest taxi based on client's location
  - Calculated the optimal route using Dijkstra's shortest path algorithm, after allocating the nearest available taxi
- **Dictionary Implementation:** Trie Data Structure   (Dec'2021)
  - Implemented functions like add-word, search-word, remove-word, auto-complete and pattern-matching using **suffix trie**
  - Designed **Trie**, an efficient data retrieval data structure mainly used for **efficiently** storing, manipulating and searching string
  - Able to get **O(n) time complexity** for insertion, deletion and lookup for a string, where n is the length of the string
- **Cheapest Flights Simulation Within K Stops**: Dijkstra Algorithm   (May'2022)
  - Implemented adjacency list and **priority queue(min-heap)** data structure and used **Dijkstra's algorithm**
  - Used **Doubly linked list** to store memory blocks currently in use and **BST** for free memory blocks: Increased efficiency

TECHNICAL SKILLS

- **Programming languages**: C++, C, Python, Java, MATLAB   **Softwares**: Visual Studio, Microsoft Office
- **Relevant Courses: C++ Foundation with Data Structures from Coding Ninjas**   (May'2020-Jun'2020)
  - The course consisted of Introduction to C++, **Object Oriented Programming (OOPs)** and **data structure algorithms**
  - Honed my coding skills by solving over 100 problems on data structures and algorithms as a part of this course

POSITIONS OF RESPONSIBILITY

- **Rendezvous** Asia's largest cultural festival organised by IIT Delhi   (Jul'2021-Apr'2022)
  Security Coordinator: Led a 3-tier team of 200+ members for the festival, having an approximate footfall of **210k+**
  - Managed entry and Movement of IITD and non-IITD students in four days, including **280+** Events and 20+ locations
  - Coordinated with Marketing, Events, Publicity and Hospitality teams to achieve a common goal of prosperous Rendezvous
  - Layout the 24 hr helpdesk to ensure the guidance and security requirements of the participants, students and visitor's during the fest
- **Infrastructure & Hospitality Coordinator, Sportech**   (Jul'2021- May'2022)
  - Co-ordinated a multi-tier team of 30+ activity heads to conceptualize, plan & successfully execute the 4-day festival
  - Responsible for logistics & co-ordination of hospitality team to ensure timely and efficient execution of 50+ events
  - Liaised with the dealer for timely procurement of logistics & refreshments for over **50+** teams in 12 sports

EXTRA CURRICULAR ACTIVITIES

- **OCS Volunteer** | Office of Career Services   (Aug'2019 - Mar'2020)
  - Coordinated with HR of **10+ companies** during the placement session and assisted in the smooth organisation of the event
  - Involved in the team that achieved and managed to have **100%** placements for the first time in IIT Delhi history
- **Weightlifting Captain** | Jwalamukhi Hostel   (Jul'2021-Apr'2022)
  - Conducted regular hostel workshops, purchased new equipment from hostel budget for gym renovation
- **Athletics Vice-Captain** | Jwalamukhi Hostel   (Jul'2020-May'2021)
  - Conducted Orientation, Trials and ensured Regular Training Sessions to Maximize Hostel's Participation at Institute Level
  - Conducted talent identifcation practices and inculcated a culture of feld events
- **Jwalamukhi Maintenance Committee Member** | Jwalamukhi Hostel | IIT Delhi   (Sept'2020-May'2021)