



SUBHALINGAM D



ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Mathematics & Computing	Indian Institute of Technology, Delhi	7.782
2018	CBSE	Chennai Public School, Chennai	96.4%
2016	CBSE	Chennai Public School, Chennai	10

PROJECTS

- **Web Designing & Development for Student Affairs Council (SAC), IIT Delhi** [Feb, 2020 - present]
- **Graph with Triangulation method [Java] (Prof. Subodh Kumar, Computer Science and Engineering)** [Oct, 2019 - Nov, 2019]
Approximated any shape in Real space as small triangular components to compute the *Neighbours(of triangle/edge/vertex)*, type of *Mesh* obtained, *Boundary edges*, *maximum Diameter* in a connected component, *Median*, *Number of Connected Components* and *Closest Components* in terms of *Euclidean distance* which can be applied in real-life applications.
- **Jobs Scheduler & Manager [Java] (Prof. Subodh Kumar, Computer Science and Engineering)** [Sept, 2019 - Oct, 2019]
Used *Red-Black Trees*, *Tries*, *Max-Heap* and some other data structures and implemented a *Job Scheduler* to schedule and execute a *Job* of a *Project* by a *User* based on the *priority (or wait-time)* and *resources* available and reporting various other details like users who consume lots of resources, jobs belonging to a project/user and Job status efficiently.
- **Analysis of Double Hashing and Separate Chaining (Prof. Subodh Kumar, Computer Science and Engineering)** [Sept, 2019]
Analysed *asymptotic complexities* and *collision rate* of queries in *Double Hashing* and *Separate Chaining* techniques.
- **Selling & Buying Platform with Multithreading [Java] (Prof. Subodh Kumar, Computer Science and Engineering)** [Aug, 2019]
Sellers add the items to a *Catalogue* maintained as a *Priority Queue*, which are sorted based on the priority of sellers and then sold to *Consumers*. Achieved concurrency using Multithreading without compromising on Thread Safety.
- **Symbolic Differentiation [Python] (Prof. Subhashis Banerjee, Computer Science and Engineering)** [May, 2019]
By parsing the given fully parenthesised infix expression, constructed a *Binary Tree* and thereby computed its derivative by traversal. The parser supports a variety of real functions like algebraic, trigonometric, exponential, composite functions.
- **Sound Detector Switch (Prof. Mummadi Veerachary, Electrical Engineering)** [Mar, 2019 - Apr, 2019]
A potential developed across *Condensor Mic*'s terminals due to sound is used as input to *CE transistor* whose output goes to a *555 timer IC* in mono-stable configuration which delays the trigger signal and the output pulse from the timer goes to *D-type flip flop* which changes the state of the output from ON-OFF or OFF-ON.
- **Product Realisation by Manufacturing (Prof. Naresh Bhatnagar, Mechanical Engineering)** [Aug, 2018 - Nov, 2018]
Realised a Rube Goldberg machine along with a team of about 20 students, using processes like carpentry, welding, drilling.

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, SML NJ **Web Development:** PHP, MySQL, CSS, jQuery, HTML
Tools: MATLAB, Verilog, Autodesk Inventor, LaTeX(basics) **Operating Systems:** MacOS, Linux (Ubuntu), Windows

POSITIONS OF RESPONSIBILITY

- **Web Development Executive, Student Incubation Cell, IIT Delhi** [Sept, 2019 - present] : *Core Team Member*
Conceptualise, design and develop the website and test it. Help in organising events related to Startups for the Cell.
- **Executive, Mathematics Society, IIT Delhi** [Jul, 2019 - present] :
Help in planning and organising events. Manage the social media handles. Design and develop a website for the Society.
- **Technical Executive, Rendezvous** [Aug, 2019 - Oct, 2019] : (*Cultural Festival of IIT Delhi*)
Part of the Web Front-end Development team and contributed towards designing of the same.

EXTRA CURRICULAR ACTIVITIES

- **Language Mentor** [Aug, 2019 - present]:
- Assist freshmen in overcoming English Language barrier by conducting interactive sessions throughout the semester.
- **Active Volunteering in Teaching Projects under National Service Scheme, IIT Delhi** :
- **VIDYA Project:** Teach students of classes from 3rd to 12th to inculcate the fundamental concepts of all subjects.
- **NAB Project:** Interact with the students at *NAB, RK Puram*, and assist them in learning their school subjects.
- Preparing notes in certain topics of *Mathematics* for *JEE Main* to be used by the students under the **Garhwal Project**.
- **Security Team Head, Rendezvous** [Oct 2018]

SCHOLASTIC ACHIEVEMENTS

- Qualified in **Cambridge English: Preliminary (PET)** (*B1 Preliminary for Schools*), conducted by **University of Cambridge**