



PAVAS GOYAL



ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Computer Science & Engineering	Indian Institute of Technology, Delhi	9.367
2018	CBSE	RoseMary Convent School	93%
2016	ICSE	Malwa School	94.4%

SCHOLASTIC ACHIEVEMENTS

- **JEE Advanced, 2018** : Secured **All India Rank 90** in **JEE Advanced** among 1.2 million participating candidates.
- With **All India Rank 337**, received **KVPY Fellowship Award, 2018** by Department of Science, Government of India.
- **IIT Delhi Merit Scholarship, 2018** for being in the **Top 7%** performers among all First year Undergraduate Students.
- Invited by **University of Sydney, Australia** to attend as a **Visiting Research Student** at SCS Labs, University of Sydney.
- **1st Runner up** in **DevClub ACES ACM Hackathon** organized at IIT Delhi for building a utility for Shuttle Bus Service.

INTERNSHIPS

- **Microsoft, Hyderabad** (May, 2021 - July, 2021) : **Task Management System**
 - Built a browser extension featuring a task management system to help users enhance their personal productivity
 - Added to the application, the facility for various productivity methods like Kanban, EHM, Time Blocking & 1-3-5
 - Built a testing framework using Jest for improving reusability and real time telemetry analysis for monitoring performance
- **Nokia, Gurgaon** (April, 2020 - June, 2020) : **Biometric Authentication and User Interaction**
 - Built text dependent speaker recognition and fingerprint recognition module for adding authentication to office robot
 - Utilized Gaussian Mixture Models for speaker recognition facilitating spectral noise gating for noise abstraction
 - Used image processing techniques like Gabor filter, normalization and thinning for latent fingerprint enhancement
 - Integrated voice command facility for guiding Robotic Navigation System. Rendered the graphics using Qt library
- **FlexiEle Consultancy Services, Gurgaon** (July, 2020) : **Candidate Ranking System**
 - Utilized Spacy, Microsoft recognizers for resume parsing and keywords based classifier for resume segregation
 - Used attribute based scoring, facilitated by semantic sentence matching, for ranking based on given job description

PROJECTS

- **Raster Table Image Accessibility** : Prof. M Balakrishnan, IIT Delhi (May, 2019 - July, 2019)
 - Developed a software to facilitate accessibility of tabular data in digitized books and research texts for blind people
 - Achieved **>90% accuracy** in structure extraction using contours methods and **>85% accuracy** in text extraction using OCR
 - The project was done as a part of Reading Assistant for Visually Impaired being developed by **Assistech Lab**, IIT Delhi
- **MRTG Alarm System** : Prof. Niladri Chatterjee, IIT Delhi (April, 2020 - June, 2020)
 - Designed analysis tool for MRTG, which assesses health of network devices and raised alarm at abnormal events
 - Implemented a scripting algorithm to extract graph data points achieving **98% accuracy** for anomaly detection
 - Minimized the incident to alarm latency by employing parallelized processing and caching for redundant OCR calls
- **Low Latency Multi-Platform Controller** : DevClub, IIT Delhi (March, 2020 - April, 2020)
 - Developed an application that turns a smartphone into a controller for any emulator that supports custom buttons
 - Built server-client architecture using combination of TCP and UDP sockets achieving ultra low **latency of 10 ms**
 - Utilized py-automation for generating server side OS signals to increase the platform scalability of the controller
- **Custom Torrent System** : Prof. Aaditeshwar Seth (Sept, 2020 - Oct, 2020)
 - Developed a custom torrent client for distributed and reliable downloading of large files in a peer-to-peer network
 - Implemented intelligent distribution of chunks between peers and multiprocessing achieving **x10** download rates
 - Handled the connection break issues without loss of data as well as content poisoning issues using **SHA-1** Hashing
- **Covid Query System** : Prof. Maya Ramnath, IIT Delhi (April, 2021 - May, 2021)
 - Designed a memory efficient schema and developed an effective querying system in PostgreSQL over KCDC Covid Dataset
 - Implemented indexes and materialized views for minimizing latency and triggers, rules and transactions for DB Management

TECHNICAL SKILLS

- **Programming**: Java, C/C++, Python, SQL, Dart, Ocaml, VHDL, Prolog, HTML/CSS, NodeJs, MIPS
- **Software & Tools**: Spacy, OpenCV, OpenMP, MPI, Numpy/Pandas, Tensorflow, Linux, Git, Flutter, AndroidStudio

EXTRA CURRICULAR ACTIVITIES

- **Competitive Programming** : Active competitive coder with highest **1935 rating** at global level on codechef platform.
- **Executive, DevClub IIT Delhi** : Developing novel applications catering to problems both inside and outside the institute
- **Acadmaze, IIT Delhi Startup** : Worked as a **Core Team Member** and Lead Developer at **Acadmaze** for over an year.
The startup was selected as a regionalist at Entrepreneurship World Cup and iB Hubs start-up school



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IIT COURSE

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COURSES DONE

Intro. To Computer Science, Calculus, Electromagnetic Waves&qua.mec., Engg. Visualization & Comm., Product Realization By Manf., Linear Algebra & Diffe. Equa., Data Structures And Algorithms, Discrete Mathematical Structur, Digital Logic & System Design, Introduction To Comp.sc. & Eng, Probability & Stochastic Pro., Computer Architecture, Design Practices, Programming Languages, Signals And Systems, Analysis &design Of Algorithms, Computer Networks, Machine Learning, Principles Of Artificial Int., Organization And People Management, Intro. To Database Mgmt. Syst., Intro. To Parallel & Dis. Pro., Operating Systems, Intro To Automata & Th. Of Co., Special Module In Cyber Security

POSITIONS OF RESPONSIBILITY

- Developer, DevClub PORs 20-21 (September, 2020 - May, 2021)