

PAVAS GOYAL

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Sophomore , Computer Science and Engineering, Indian Institute Of Technology, Delhi
Shivalik Hostel, Indian Institute Of Technology, Delhi 140016

ACADEMIC DETAILS

YEAR	DEGREE/BOARD	INSTITUTE	GPA/MARKS
Exp. 2022	BTech in Computer Science	Indian Institute of Technology, Delhi	9.529/10.000
2018	XII, CBSE	Rose Mary Convent School	93%
2016	X, ICSE	Malwa Public School	94.2%

SCHOLASTIC ACHIEVEMENTS

JEE(Advanced) : Secured **All India Rank 90** among a total of 1.5 million students

Kishore Vaigyanik Protsahan Yojana (KVPY) Scholar : With an **All India Rank 337** was awarded fellowship funded by the Department of Science and Technology, Government of India.

Excellence in Semester-I : Was among the **top 7%** amongst all freshers of the year

Regional Mathematics Olympiad (RMO) : Qualified for Regional Mathematics Olympiad ,the first round of mathematics contest leading to the prestigious International Mathematics Olympiad

National Standard Examination in Chemistry : Qualified NSEC being **top 1%** in the country.

PROJECTS

Conversion of Raster Tables Images into Accessible Form

Prof. M. Balakrishnan, Computer Science Department, IIT Delhi

May,2019 - July,2019

- Developed as a Part of RAVI project (**Reading Assistance for the Visually Impaired**) under Assistech Lab, IIT Delhi.
- Used **Image Processing** tools to develop a system which extracted the table structure and data from raster images and rendered the same into the Accessible (HTML, XML) structured Tables.
- Implemented and optimized **contour detection, canny edge detector, Hough Transform** and other structure detection algorithms to achieved around 90% accuracy for text structure detection.
- Studied and optimised **Tesseract(OCR) engine** it to increase its accuracy in every type of text extraction.

Web based Platform for Academicians

Prof. S C Gupta, Computer Science Department, IIT Delhi

September, 2018 - July, 2019

- Improved the user-interface using HTML, CSS , Javascript and bootstrap.
- Devised an efficient query system for advanced and power rich text search using nodeJS \$search
- Conceptualised and implemented the server side system using **express JS** and **NodeJS** for handling client requests.
- Implemented **mongoose** and **mongoDB** Schemas to handle server side storage.
- Customised the server for **Load Balancing** and **encryption** for security management of data.
- The Project was selected as regional finalist at **Entrepreneurship World Cup**, and at **iB Hubs** startup school.
- The platform was awarded 1000 US dollars as AWS credits by Amazon.

Autonomous Brightness Controlling System for Smart Lighting System

Prof. Anshul Kumar, Computer Science Department, IIT Delhi

September, 2019

- Designed and manufactured an autonomous system controlling brightness of LEDs based on Ambient light intensity available around it.
- Used **Peripheral Modules** for Ambient Light Sensing and dynamic information transfer.
- Implemented transfer protocols like **SPI** for communicate among FPGA board and Peripheral Module.

Sound sensitive wireless switch system

Prof. Seshan Srirangarajan, Electrical Department, IIT Delhi

October, 2018 - November, 2018

- Implemented the use of **Electret Condenser Microphone** for detection of sound.
- Apart from controlling this system can be extended to the use of making various sound controlled automated systems.

Job Scheduler for efficient Project Management

Prof. Subodh Kumar, Computer Science Department, IIT Delhi

September, 2019 - October, 2019

- Implemented a Java application prototype optimizing the time through use of variety of data structures and algorithms which allows user to enter Jobs subjected to their priority and schedules them as per requirement.

WORK EXPERIENCE

Technical head at Acadmaze, IIT Delhi Startup

August, 2018 - Present

Lead a team of 7 developers, Selected as regional finalist at Entrepreneurship World Cup, and at iB Hubs startup school. Visit Website - <http://acadmaze.com>

Project Member at Assistech Lab, IIT Delhi

May, 2019 - Present

Worked under Assistech Lab for a Project which is part of Project RAVI (Reading Assistant For Visually Impaired)

RELEVANT COURSES

Ongoing: Data Structures and Algorithms , Discrete Mathematical Structures , Probability Stochastic Processes , Digital Logic System Design

Completed: Introduction to Algorithms and Computing, Applications of Calculus, Linear Algebra , Theory of Differential Equations , Thermodynamics , Electromagnetic Waves and Quantum Mechanics.

Expected to be Completed by April, 2020: Programming Languages, Computer Architecture, Signals and Systems

TECHNICAL STRENGTHS

Programming

Python, Java, VHDL, C++, NodeJS, HTML, CSS, Javascript

Software & Tools

Android Studio, OpenCV, Xilinx ISE, Vivado design suite, AutoDesk Inventor, Unity, Amazon Web Services

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