

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.

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.

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.
- 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.

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.

Fireworks animation

Prof. Rahul Narain, Computer Science Department, IIT Delhi

August, 2019 - September, 2019

- Implemented the use of **FuncAnimation** for creating a well conceptualised animation of burning firecrackers.
- Implemented automatic extraction of sound clip from the web for the same.

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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