

## VATSALYA BAJPAI

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Indian Institute of Technology, Jammu



• ChargedMonk

in Vatsalya

ACADEMIC QUALIFICATIONS				
Year	Degree/Examination		Board/University	%/CGPA
2017 - Present	Bachelor of Technology in Electrical Engineering		Indian Institute of Technology, Jammu	6.82/10.0
2016	Class XII		Council for the Indian School Certificate Examinations	93.40%
2014	Class X		Council for the Indian School Certificate Examinations	92.33%
ACADEMIC DISTINCTIONS AND CO-CURRICULAR ACHIEVEMENTS				
		■ Stood overall 2 <sup>nd</sup> in the Online Hackathon Festival organized by IIT Bhilai and		
Online Hackathon		Dare2Compete which had over 4500 participants  Stood overall 3rd in the Online Hackathon Festival organized by LUET and		

# Stood overall 3rd in the Online Hackathon Festival organized by UIET and **Festival Dare2Compete** which had over 4000 participants Won the event by grabbing the 1st position in this logical quizzing event which had teams participating from all over north India **Brain Games** Modelled highest flying Quadruple Drone in the Drone Modelling Workshop by TechEagle Modelled a Glider in Aerodynamics Modelling Workshop Aeronautics Programming Languages – Python | Julia | GO | Java | C | C++ | Ruby <u>Libraries/Frameworks</u> – TensorFlow | Keras | OpenCV | Pygame | Pytesseract | PyTorch Systems/Platforms - Linux | AWS | Google Cloud Platform | Docker | Raspbian Software - Android Studio | 20SIM | CST | Autodesk Inventor | Xilinx ISE | Xilinx Vivado **Technical Skills DBMS** – MySQL Others - MATLAB | Octave | PHP | VHDL | HTML | XML | CSS <u>Interests</u> – Artificial Learning | Machine Learning | Data Analysis | IoT | Signal Processing Leadership Management Skills Soft Skills

# **PROJECTS**

**XyNET -** Closed Caption generator using Signal Processing Team Player

- It extracts audio from a video and filters out the non-human audio using a sequence of low pass filters and band pass filters. After removal of noise, speech recognition is applied using the PocketSphinx speech recognition API. Time stamped captions are then generated and stored in '.srt' extension file
- GitHub Link https://github.com/ChargedMonk/XyNET

**ZyPHER -** IoT based Advanced Security Device

- An advanced security device based on IoT made on Raspberry Pi, which detects motion
  using PIR sensor and captures images and video of the intruder and notifies the user via
  email also sending the captured images and video
- GitHub Link https://github.com/ChargedMonk/ZyPHER

## A complete game based on Python using **Pygame** module. Implemented **collision** Rage of Orion - A mechanics. Worked on graphics development for the game game on Python • GitHub Link - https://github.com/ChargedMonk/Rage\_of\_Orion • It detects all the humans present at a **traffic junction** using **available cameras** at a traffic light. It's part of a bigger project of smart traffic management system using junction HomoSapien\_Counter cameras. GitHub Link - https://github.com/ChargedMonk/HomoSapien\_Counter A solar powered beach chair with an efficient design so that you can charge your devices Solar Beach Chair while away from any power source. This project was part of MEP101 course at IIT Delhi under Prof. P.V.M. Rao YouTube Link - https://youtu.be/QS7oiIjIysA **POSITIONS OF RESPONSIBILITY** The first Joint Secretary of IEEE Student Chapter, IIT Jammu Joint Secretary IEEE Student Chapter Established IEEE Student Chapter at IIT Jammu IIT Jammu 2018 - Present Coordinated GameCON, the E-sports event at the annual technical fest of IIT Jammu in

## Coordinator Technical Fest of IIT Jammu

- Hosted four sub events under it with a total budget of over 2 lacs with immense participation from colleges all over North India.

#### Coordinator

Cultural Team at Freshtival

- Coordinated the cultural team at Freshtival, the inducting event of 2018 batch students of IIT
- Managed all the backstage activities including sound system, lightings and props.
- Worked alongside the decoration team to handle decoration, seating and lightings

#### **EXTRA CURRICULAR ACHIEVEMENTS**

# Workshops Conducted

- **Taught** Java at a workshop to the 2017 batch of IIT Jammu
- Showcased Project ZyPHER and explained its working in a workshop conducted under the Robotics Club of IIT Jammu

### CyberFiesta 2015

Represented my school at CyberFiesta, the annual technical fest of Methodist High School

# **Sports**

- Scorer of the Grand Final of Cricket tournament at the first Convoquer, the annual sports fest of IIT Jammu in 2018
- Scorer of the Volleyball tournament at Convoquer 2019
- Avid volleyball, table tennis and chess player

## Photography Club Member

Designed the logo of GameCON