PARTHASARTHI AGGARWAL

ACADEMIC PROFILE							
Degree/Cert	tificate	Institution				Percentage/CO	PA Year
B-Tech		Electronic Engineering IIT (BHU), Varanasi				9.43	2024
Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Sem VII	Sem VIII
9.67	9.41	9.21	9.52	-	-	-	-
CBSE (XII)		Navyug Convent School Sainik Encl-2 Jharoda Nd				92.80	2020
CBSE (X)		Royal Global School Betkuchi Guwahati Assam				93.80	2018

SKILLS

- Programming Languages: C/C++, Python
- Areas of Interest: Data Structures, Algorithms, Competitive Programming, Machine Learning, Web Development
- Tools and Frameworks: Git and Github, Django and Flask, VsCode, Google Colab

PROJECTS

Autonomous Path Mapping Robot | Pixelate'22

March 2022 - April 2022

- Designed a fully autonomous robot that used live video feed from an overhead camera to navigate itself through a Honeycomb-shaped maze consisting of hexagonal tiles
- Implemented Dijkstra's algorithm and Image Processing techniques to chart the optimum path in the Arena
- Exposure: OpenCV, Numpy, DSA, Aruco. Github

Handwritten Emoji Captcha Detection | Mosaic'22

March 2022 - April 2022

- Trained two custom CNN models for emojis and alphabets separately for prediction.
- Used OpenCV to pre-process images, CNN architecture using TensorFlow to train model and finally used contour detection for character segmentation.
- Achieved 90.71% accuracy for Letters and 95.21% accuracy for emojis
- Exposure: CNN, Keras, Tensorflow, Pandas, Matplotlib, OpenCV. Github

Audio Tagging System | Signal Processing and Deep Learning project

March 2022 - May 2022

- Used a Convolutional Neural Network in Keras and combined audio and image processing to identify the audio files
- Implemented Fast Fourier transformation and other signal processing techniques to express data in a suitable format
- Successfully built and trained our model on the spectrograms and Mel Frequency Cepstral Coefficients of 300 different audio files, which is able to predict the class of the audio with 94.107% testing accuracy
- Exposure: Short Time Fourier Transform(STFT), Mel Frequency Cepstral Coefficients(MFCCs), CNN, Keras. Drive

POSITION OF RESPONSIBILITY

Member, Startup Assistance Program, Entrepreneurship Cell IIT BHU

May'21 - Present

- Manager at Startup Assistance Program, Entrepreneurship Cell IIT BHU'22 (May'22 present)
- **Student Mentor:** provided mentoring and resources to a cohort of 40 students.

Operations Executive, E-Summit'2022

• Organised events and meets, managed workshops and contributed to promotional campaigns and broadcasting

HONOURS AND ACHIEVEMENTS

- Secured 2nd position among 40+ teams in Machine Learning based event Mosaic'22, UDYAM 2022.
- Secured **3rd position** in Data Science based competition Cassandra, '22 UDYAM 2022.
- specialist level on Codeforces with a max rating of 1598 parthsecret12345
- Secured an official rank of 504 globally in Codeforces Round #801 (Div-2). parthsecret12345
- Cleared Pre-Regional Mathematical Olympiad and Regional Mathematical Olympiad and Qualified Indian National Mathematical Olympiad, 2020

EXTRA-CURRICULAR ACTIVITIES

- Worked as a Tech Intern at Expand My Business in the role of a Backend Web Developer
- Worked as a Data Operations Intern at Ambitio Technologies Pvt. Ltd.
- Runner Up, Celesta IIT Patna (Into the Cyberverse Are we alone in universe) Inter IIT competition, 2020