

SNEHLATA SINHA

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EDUCATION

B.Tech + M.Tech Dual Degree | VLSI Design and Embedded Systems

National Institute of Technology Rourkela, India

CGPA: 8.32/10

Intermediate | Science

BSEB, Patna

Percentage: 78/100

Matriculation

Mother's International Academy, Patna

CGPA: 9.6/10

CG171. 7.07 10

EXPERIENCES

Application Development Analyst, Accenture AI ATCI

Jan 2019 - Present

Image Analytics Service Platform (IASP, Computer Vision Asset)

- **Table extraction workbench-** OCR based solution for table extraction from scanned document using Mobile Net architecture.
- **Garden Design Recommendation System -** Open-source solution for empty space calculation in a 2D image by using semantic segmentation model(Mask-RCNN) and then recommend designs.
- **Brain Tumour Segmentation** Segments and classifies three different tumours present inside the human brain using UNET architecture.
- **Driver Drowsiness Detection System -** Detects fatigue & drowsiness in those drivers who drive for longer hours using OpenCV; this project was pitched to UBER.

MyWizard Ingrain Platform (Machine Learning Asset)

- Abstractive Text Summarisation Generates summaries conceptually using transformer networks.
- Intent-Entity Classification for Virtual Agents Classifies intents and extracts entities from a pandas dataframe using Rasa virtual agent framework and Neural networks, and NLP feature extraction techniques like TF-IDF, Glove, Word2Vec, Spacy-NER.
- Clustering Use Cases Implementation of K-Means and DBSCAN clustering methods with the tool.

Return to Work Project Developments

- Facial Mask Detection System (Video Analytics) Detects facial mask on real-time video feeds using Keras and TensorFlow frameworks.
- **Temperature Mealsurement (Thermal Analytics)** Identifies face temperature on thermal images to detect employees with a potential fever in realtime using Caffe model and FlirImageExtractor library.
- Social Distancing Measurement (Video Analytics) -Detects social distancing violations on live video streams using Yolo V3 model.
- Facial Recognition (Facial Biometrics) Enrols and identifies employees using face recognition OpenCV libraries and generates a pickle database file enlisting employee's facial encodings for the same.

Speech Analytics Asset

• **Speech Command Recognition -** Speech Command Recognition using CNN in real time for handling maintenance tools, accuracy of 96%.

- Real time emotion recognition from customer care conversation Recognize emotion of customer while conversation is going on real time using Attention 3D RCNN (Bi-LSTM), accuracy of 78%.
- **Doctor-Patient Conversation analysis -** Identify symptoms of disease, sentiment of patient from Doctor-patient Conversation using speaker diarization.
- APIs POV done on AWS transcribe, Google speech to text, Google natural language api, Amazon comprehend, AWS medical comprehend, Amazon Polly, IBM speech to text, IBM tone analyser.

Trainee Sep 2018 – Dec 2018

Accenture, India

 Landmark Detection using Deep Learning - A chatbot based image classification application using Transfer Learning with Inception V3 model, DialogFlow and HTML page (JSON and Flask), which accepts images from user and predict the landmark.

Researcher, NIT Rourkela

2017 - 2018

Air Quality Monitoring System

• Various Air Quality sensors like MQ2, MQ7, DHT22, GP2Y1010 etc were integrated with Arduino Mega(based on ATmega 2560) & then using IoT module, data was being sent to Thingspeak.com for further analysis and monitoring. Also, it had an option of sending sms to the user if any parameter exceeded the defined threshold.

Summer Research Intern, IIT Kanpur

2015

Micro contact printing for fabrication of Transister

• Worked in clean lab at Centre for Nano-sciences, IIT Kanpur & created microbe-based masters for micro contact printing. Developed methods for their preparation and worked for creation of Transistors

SKILLS

AI-ML:Machine Learning, Deep Learning (Neural Network), Speech & NLP, Computer Vision

Frameworks: Tensorflow, Keras, Dialogflow, OpenCV

Languages: Python, R

Others: Microsoft Office Suite (Excel, Powerpoint, Word), LaTex

ACHIEVEMENTS AND AWARDS

- Bagged 2nd position globally across 18 countries and 531 participants in Accenture AI Global Hackathon, 2020
- Authored and presented the research paper, "Voice Controlled Media Player", at the SIRS'19 conference.
- Won 1st position in AI.NXT competition held in Accenture India across 58 teams, 2019
- Awarded with SPOT award for contributing new ideas that helped provide higher value to the client (T-Mobile)

EXTRA CURRICULAR ACTIVITIES

Founder & Digital Influencer at The.Roadtaken

2020-Present

Instagram, 10K+ followers

• I create online content, to share my experiences on food and places. Worked with more than 50 brands and online businesses to help them build their brand and social media presence by sharing relevant content.

Central Coordinator at Institute Counselling Service (ICS)

2016-2018

NIT Rourkela, India

• Worked as central coordinator (2017-2018) and mentor (2016-2017) at ICS. It's a noble initiative by the Director, Prof Animesh Biswas aimed to deals with the issues a student face academically, financially & mentally.

Mess Secretary at C.V.R. Hall of Residence

2015-2016

NIT Rourkela, India

• As an elected member of Hostel Management council (HMC) I was responsible for checking the quality of food, mess maintenance & welfare of students in scholars avenue along with the cheif-warden, director, registrar, wardens and assistant wardens.

Member at AASRA 2013-2017

NIT Rourkela, India

• Spent my weekends to educate the under-privilaged children around Rourkela. Worked with multiple NGOs to fulfil their needs.