Saranga Kingkor Mahanta

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Education

National Institute of Technology Silchar, India *CGPA (absolute): 8.32*
Bachelor of Technology in Electronics and Communication Engineering *Aug. 2018 - June. 2022 (Expected)*

Army Public School Narangi, Guwahati *Percentage: 92.6%*
Intermediate Science (Physics, Chemistry, Mathematics, Computer Science) *2016 - 2018*

Sarala Birla Gyan Jyoti, Amingaon, Guwahati *CGPA: 10*
Matriculation *2004 - 2016*

Experience

Devopedia *Bengaluru, India*
Data Science Intern *May. 2021 - Present*
- Parsing text data from websites to build a **Named Entity Recognition** model
- Objective- Given a URL, to extract the author name, year of publishing, and title of the content and generate a reference citation string in CMS format

The Sparks Foundation *Singapore*
Computer Vision Intern *Dec. 2020 - Jan. 2021*
- Fine-tuned **VGG19** to build a real-time face mask detector
- Exploited **K-Means clustering** to identify major colours in an image and search images having particular colour via colour name

Utkarshini Edutech *Bengaluru, India*
Machine Learning Research Intern *Dec. 2019 - Feb. 2020*
- Conducted a comparative study on Convolutional Neural Networks and various architectures: **LeNet-5**, **AlexNet**, **VGG-16**, **GoogLeNet**/**Inception-v1-4**, **ResNet-50** , **Xception**, **Inception-ResNet-V2**
- Formulated pellucid documentations

Publications

"**COVID-19 Diagnosis from Cough Acousitcs and ConvNets**"
Saranga Kingkor Mahanta Shubham Jain, Darsh Kaushik, Koushik Guha
Paper under review at IEEE Engineering Conference in Mauritius 2021

"**Deep Neural Network for Musical Instrument Recognition using MFCCs**"
Saranga Kingkor Mahanta Abdullah Khilji, Partha Pakray
Computación y Sistemas: Vol 25, No 2 (2021) ⎘

Key Projects

COVID-19 Diagnosis from Cough Acoustics *Mar. 2021*
DiCOVA 2021 challenge *Link to project*
- Used **Audiomentations** & **ConvNet** to efficiently classify cough sounds belonging to Coronavirus positive or negative subjects
- Claimed the top position of the DiCOVA 2021 Challenge leaderboard

Multi-class Musical Instrument Recognition *Dec. 2020 - Jan. 2021*
Guide: Dr. Partha Pakray *Link to project*
- Extracted Mel-Frequency Cepstral Coefficients from monophonic audio clips
- Architectured a **deep neural network** and achieved a new state-of-the-art accuracy on the London Philharmonic Orchestra Datasest

Topic Extraction and Modelling from Online Chats
Aug. 2020 - Oct. 2020

GUIDE: DR. PARTHA PAKRAY

Link to project

- Implemented **Latent Dirichlet Allocation** to cluster topics in text dialogues
- Locally deployed a **WordCloud** generating web-app of uploaded Whatsapp Chat text file using **Flask**

Spam, Random Text and Abusive Words Classifier
July 2020 - Aug. 2020

SMART INDIA HACKATHON 2020

Link to project

- Built **Spam Classifier** using **Multinomial Naive Bayes** algorithm
- Performed additional hardcoding to detect random gibberish texts and selected abusive words
- Deployed on the Web using **Flask**
- Incorporated classifier with main website presented in SIH-2020 Grand Finale

Positions of Responsibility

Machine Learning Club, NIT Silchar
NIT Silchar

SENIOR CORE MEMBER

Sep. 2019 - Present

- Club Objective- Providing mentorship to ML enthusiasts and develop the ML/DL culture in college
- Club activities include taking classes, hosting quizzes, interviews and ML hackathons
- Taught Machine Learning fundamentals to juniors and beginners

Achievements

2021	**Bagged 1st position in the DiCOVA 2021 Challenge leaderboard** for the Track 1 problem statement- COVID-19 diagnosis from cough sound recordings	*DiCOVA 2021 Challenge*
2020	**Finalist in the National Crystal Ball 2020 Hackathon** for the problem statement- prediction of delivery time of restaurants	*Blue Yonder*
2020	**Grand Finalist in Smart India Hackathon - 2020, organized by MHRD, Government of India.** Built and incorporated with the main website a modified spam classifier, a time series forecasting instance using the SARIMA model, and a chatbot using Dialogflow	*Sage University, Indore*
2020	**Organized Electro-hunt in Sprectrum 5.0** , the technical weekend of Electronics and Communication Society, NIT Silchar	*NIT Silchar*
2018	**Winners of Robo-Soccer, Tecnoesis** , the annual technical festival of NIT Silchar	*NIT Silchar*

Technical Strengths

Computer Languages	C, C++, Python, HTML, CSS, MySQL
Software and Tools	Git, LaTeX, Adobe Photoshop
Libraries & Frameworks	TensorFlow, PyTorch, Flask, NLTK, OpenCV, Librosa, Scikit-learn
Domains	Computer Vision, NLP, Speech Processing, Adversarial Machine Learning, DSA

Certifications

- 30 Days of Google Cloud Platform, *October 2020*

- Neural Networks and Deep Learning | *Deeplearning.ai*

- Introduction to Tensorflow for AI, ML and DL | *Deeplearning.ai*

- Machine Learning with Python | *IBM Badge*

- Machine Learning | *Andrew Ng, Stanford University*