



RAHUL MAHANOT

Electronics and Communication Engineering
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Degree	Institute	Year	CGPA / %
B. Tech (ECE)	IIT Bhubaneswar	Expected – May 2020	7.83
Higher Secondary	S S Academy Junior College, Guwahati	2016	90

WORK EXPERIENCE

RESEARCH INTERN, Tata Consultancy Services Research and Innovation Labs, Kolkata May '19 – July '19

Conversion of a Tensorflow model to Core ML, Analyzing and Processing Visual and Audio data

- Developed a python application to convert an Auto Encoder model written in Tensorflow to Core ML format
- Contributed to open source libraries – **coremltools**, **tf-coreml** and **MPI-IS mesh** library
- Built an automated end-to-end pipeline for generating video frames of facial movement synced with audio
- Worked on video processing for input to a GAN model, testing, evaluation and integration of model output frames to generate a video synced with the previously extracted audio

RESEARCH INTERN, Indian Institute of Space Science and Technology Dec '18 – Jan '19

Abstractive Text Summarization using Neural Attention based sequence-to-sequence model

- Developed a model to generate concise summaries in less than 10 words for articles longer than 200 words
- Used DUC dataset and compared performance of character and word level models
- Repository Link: https://github.com/Mahanotrahul/NLP_Text_Summarization

RESEARCH ASSOCIATE, Prajjawala Systems and Solutions Pvt. Ltd. May '18 – July '18

Edge-Computing and IoT based Automation and Optimization of Distributed Sensor Network

- Worked on interfacing various sensors over UART and I2C using raspberrypi
- Developed python application that enabled communication over IoT based LoRaWAN network
- Ideated and worked in a 4 member team to develop a minimum viable product and wrote technical content for a patent filed for the product
- Project awarded by the NRDC, Govt of India as one of the top 5 innovative projects in India for the year 2018

Program Manager and Developer Intern, Vasisars Pvt. Ltd. May '17 – July '17

- Developed an employee attendance and information management portal
- Languages and tools used: PHP, MySQL, JavaScript, jQuery, etc.
- Repository Link: https://github.com/Mahanotrahul/EIMS_Web_App

PROJECTS

Emotion Recognition using Speech and EEG Signals Aug '19 - present

Bachelor's Thesis Project

- Developing an attention based convolutional and recurrent neural network framework for emotion recognition
- Ongoing work: Using frame-level speech features and discrete wavelet transform for feature extraction
- Future Work: Develop an API for real-time emotion recognition in dyadic conversation using speech and EEG signal

Smart India Hackathon – 2019 Mar '19

- Developed a novel framework for a web-app in PHP and MySQL that provides payment services and handles communication between an android app and the server in the backend
- Won 3rd Prize and a cash reward of INR 50K at Smart India Hackathon – 2019
- Repository Link: https://github.com/Mahanotrahul/Retailer_Web_Portal

Deep Learning based Neural Style Transfer using Convolutional Neural Network Aug '18

- Developed a Convolutional Neural Network that combines different artistic images to create new art
- Compared runtime performance and accuracy of the model on a Tesla K80 GPU and 8GB RAM CPU

Chat Box using Sockets Mar '18

- Developed a socket based chat box in python that allows a user to connect over a network and chat
- Repository Link: https://github.com/Mahanotrahul/Chat_Box_Sockets

ACHIEVEMENTS

- Awarded the **National Budding Innovators Award** – 2018 along with a cash reward of INR 1 Lakh conferred by the National Research Development Corporation(NRDC), Govt of India
- Won the **Tata Grand India IoT Innovation Challenge** (GIOTIC) along with a cash reward of INR 5 Lakh hosted by Tata Communications and Confederation of Indian Industry(CII)
- Won 3rd prize and a cash reward of INR 50K at Smart India Hackathon – 2019 in Students Innovation
- Received Smart Innovator Award by Prof. R V Raja Kumar, Honorable Director, IIT Bhubaneswar in Jan, 2019
- Received best business-plan presentation award at VGSOM, IIT Kharagpur in Feb, 2018
- Recipient of MCM scholarship for the last three years by Govt of India

PATENT

Method of and apparatus for automation and optimization of LPG cylinder distribution system
Indian Patent Application Number: 201811018360, filed in 2018, Patent Pending.

TECHNICAL SKILLS

- Programming Languages: Python, C++, PHP, SQL, Matlab, JavaScript, LaTeX
- Libraries and Frameworks: Keras, Tensorflow, OpenCV, Matplotlib, scikit-learn
- Platforms: MySQL, MongoDB, XAMPP, Jupyter Notebooks
- Software and IDEs: Visual Studio, Apache Spark, Anaconda, MS Office

POSITIONS OF RESPONSIBILITY

- Microsoft Student Partner, Microsoft, 2017 – 2018
- Former Governor, Nakshatra - The Astronomy Society of IIT Bhubaneswar
- Member, Design and Innovation Centre, IIT Bhubaneswar
- Technical Coordinator and Developer, ALMA FIESTA, IIT Bhubaneswar

REFERENCES

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