

SAGAR R RAIKAR

Linkedin — Homepage — Github Profile
Speech Engineer, Sayint.ai, Hyderabad - 500072
+91 94839 18001 ◊ raikarsagar007@gmail.com

OBJECTIVE

Aiming to pursue challenging career in the field of Data Science and Machine Learning being a part of progressive organization working towards technology and services which would provide a scope for enhancement of my contribution towards product development and knowledge.

EDUCATION

Bachelor of Technology in Electronics and Communication Engineering 2015-2019
Indian Institute of Information Technology, Dharwad.
CGPA: 9.06/10.00

Intermediate 2014-2015
Karkala Jnanasudha PU College, Karkala. Dept. of Pre University Education, Karnataka,
Percentage: 96

EXPERIENCE

Speech & ML Engineer Aug 2019 - Present
Sayint.ai, Zen3tech *Hyderabad*

- Development and Finetuning of Speech, NLP and ML models catering to conversation AI applications.
- Deployment of Speech, NLP models as APIs for backend usage.
- Working on NLP services such as auto punctuation and NER tagging as part of the Voice-Bot pipeline.
- Working on Development of Text-to-Speech Synthesis system for Indic languages.

Student Trainee Jan 2019 - Aug 2019
Mercedes Benz Research and Development India *Bangalore*

- Design of POC for Wireless Camera system in Cars/Trailers and performed a study on feasibility of implementation.
- Developed an Application for Workflow management in product planning and rollout with Data Analytics.
- Worked on Lane Detection and Camera based Park Assist system for Level 2 and 3 automated Cars using state-of-the-art Computer vision techniques.

Incubatee at Sandbox Startups 2017 - 2019
Deshpande Foundation *Hubli*

- Incubated as startup working on Drone Design and Image processing based applications for drones.
- Developed POC for Drone and Camera based system utilized for a Business case in Entertainment sector.

Summer Research Intern May 2018 - Aug 2018
Indian Academy of Sciences Summer Research Fellowship - 2018 *IIT Delhi*

- Worked at Electrical Department in IIT Delhi on a project titled "Characterization of Non-Lambertian Light sources for use in LiFi Networks(VLC)". Visible Light Communication is one of the prospective 5G Technologies which are being commercialised.

TECHNICAL SKILLS

| | |
|------------------------------|---|
| Programming Languages | C++, Python |
| Web Technologies | HTML-CSS, JavaScript, Flask-Python |
| Software Technologies | Docker, REST API Dev, MLflow, GCP and Azure ML services |
| ML/Data Science | Tensorflow, PyTorch, Kaldi (ASR Toolkit) |
| Conversational AI | NeMo toolkit, spacy, Deeppavlov, rasa nlp |

PROJECTS

NLP engine features: Punctuation prediction and NER June 2020
Project

Worked on development of BiLSTM-CRF and BERT based punctuation prediction feature which plays important role in processing text in the voicebot pipeline. Also exploring Medical NER models recently.

Speech Enhancement for Call center applications Oct 2019
Project

Worked on Classic signal processing and Deep-learning based Speech enhancement techniques which helps to improve ASR performance. In addition, exploring development of speech enhancement as an Audio plugin for usage in meeting applications.

Automatic Speech Recognition Jan 2019
Major Project

Worked on GMM-HMM, TDNN, RNN-LSTM based ASR implementation using Tensorflow Pytorch toolkit. Also Implemented a Neural Network based Speech Enhancement for usage in Recognition systems. Currently working on Indic Language ASRs.

Light Fidelity - Visible Light Communication July 2018
Research Project

Worked on a project titled "Characterization of Non-lambertian light sources for use in a LiFi Network and MIMO Systems". This project aimed at providing a statistical basis for implementing concept of MIMO systems in LiFi networks, which is proved to be one of the prospective 5G technology.

Object and Anomaly Detection for Drone Application July 2017

Worked on Object detection and anomaly detection for drone application using YOLO v2 model. Also deployment of Deep learning model was done on an Embedded platform like Raspberry Pi.

Research Project on Cognitive Radio Application Aug 2017
Research Project

Wide band Spectrum sensing using SDRs for cognitive radio applications and 5G. The concept of Compressive sensing was applied for spectrum sensing based on Sparse representation of communication signals.

Autonomous Quadcopter Design April 2016
Minor Project

Designed Quadcopter based on Simulation in MATLAB Simulink. Also worked on deployment of Deep learning based Object detection system for Drones.

CERTIFICATION & PUBLICATION

Deeplearning.ai Specialization Jun 2019
Have Completed courses on Machine learning and Deep learning from Coursera.

Building Conversational Experiences with Dialogflow May 2020
Completed course on Conversation AI Application design

WISSAP 2020

Jan 2020

IIT Mandi

Attended Wissap-2020 which held at IIT Mandi. The programme was about research works in the fields of Acoustic Source separation and signal classification.

5G Workshop and Capstone Project

Jan 2019

Attended Massive MIMO and Beamforming 5G Workshop along with MATLAB Simulation Workshop conducted by Electrical Department, IIT Kanpur under the guidance of Prof. Aditya K Jaganatham.

Design and Implementation of LiFi communication System

Nov 2018

DOI: 10.1088/1757-899X/594/1/012041

Co-authored Paper titled "Design and Implementation of LiFi communication System" at 'International Conference on Startup ventures: Technology Developments and Future Strategies (SV-TDFS)-2018' held at Manipal University Jaipur. Published in IOP Science conference series Materials Science Engg.

AWARDS & ACHIEVEMENTS

- Makerfaire - Bengaluru tech fest: Participated as a maker with start-up idea on design of customizable drones at Bengaluru tech fest 2017.
- Hackathon Machine Learning and Image Processing in 2017: Developed an Android application for Object detection using Deep learning model. Secured 2nd place.
- Amazon Alexa skill development: Secured 2nd position in Hackathon. Worked on "Alexa-Skill Development for Personal Voice Assistant"
- Participated in Smart India Hackathon and pitched a app based startup idea to IAMAI Incubation Center at KBITS.