

# Shangeth Rajaa

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## EDUCATION

### BITS PILANI

B.E. IN EEE AND M.Sc. IN  
MATHEMATICS (DUAL DEGREE)  
May 2021 | Goa, India

## LINKS

Github:// [shangeth](#)  
LinkedIn:// [shangeth](#)  
Twitter:// [@shangeth](#)

## COURSEWORK

### UNIVERSITY

Neural Networks and Fuzzy Logic, Non  
Linear Optimization, Probability and  
Statistics, Linear Algebra, Graphs and  
Networks, Numerical Analysis, ODE, PDE,  
Control System, Signals and Systems,  
Digital Image Processing

### ONLINE

Deep Learning Nano degree  
Deep Reinforcement Nano degree  
Deep Learning Specialization  
Machine learning(Stanford)  
Stanford cs229, cs230, cs234

## SKILLS

**Languages:** Python, C++, MATLAB, JS  
**Technologies:** Git, AWS, GCP, Heroku,  
Flask, LATEX  
**Frameworks:** PyTorch, TensorFlow

## OTHER EXPERIENCE

- Instructor for Deep Learning course with **Google AI** Explore ML.
- Mentor at Google Code-In with **Tensorflow** org.
- DL Content Developer at **OpenCV.org**'s "Deep Learning with PyTorch" course.
- Lead DL Course Developer at MindRabbit, US.
- Software Developer at KGLLP FIntech, Bangalore, India.
- Computer Vision Developer at Science and Technology Center, Chennai, India.
- Member | Society for Artificial Intelligence and Deep Learning(saidl.in).

## EXPERIENCE

### NANYANG TECHNOLOGICAL UNIVERSITY(NTU)| SPEECH AND LANGUAGE LAB | RESEARCH INTERN

August 2020 – Present | Singapore

- Working on Detection and Classification of Acoustic Scenes and Events(DCASE).
- Acoustic Classification with device mismatch.
- Speech Representation with information theoretical approaches(Unsupervised).

### IBM RESEARCH LABS | RESEARCH INTERN

May 2020 - Present | Delhi, India

- Developing novel quality metrics and data transformations for structured data.
- Optimization of Data Quality transformations with Deep Reinforcement Learning agents.
- Paper to be submitted at AAIL-2021.

### INRIA | RESEARCH COLLABORATOR

April 2019 - Present | Paris, France

- Organizing auto deep learning competitions for NIPS 2019.
- Research and Baselines for AutoCV, AutoCV2, AutoNLP, AutoDL and AutoSpeech competitions.

### OPEXAI | DEEP LEARNING INTERN

September 2018 – November 2018 | Hyderabad, India

- Worked on computer vision projects in self driving cars with Deep Learning and Deep Reinforcement Learning
- Steering angle prediction of self driving cars, object detection/segmentation.

## SELECTED PROJECTS

- Unsupervised Speech Representation with Information theoretical Approaches with Prof. Ashwin Srinivasan.
- Model based Deep Reinforcement learning for reduced exploration with Prof. Ashwin Srinivasan.
- Convolutional feature extraction and Neural Arithmetic Logic Units for stock prediction with Prof. JK Sahoo
- Cycle Generative Model for Semi Supervised Speech Recognition with Prof. Ashwin Srinivasan.

## PUBLICATIONS

- [1] Z. Liu, Z. Xu, M. Madadi, J. J. Junior, S. Escalera, S. Rajaa, and I. Guyon. Overview and unifying conceptualization of automated machine learning. In *Workshop on Automating Data Science (ADS). ECMLPKDD*, 2019.
- [2] Z. Liu, Z. Xu, S. Rajaa, M. Madadi, J. J. Junior, S. Escalera, and I. Guyon. Towards automated deep learning:analysis of the autodl challenge series 2019. In *Accepted at Proceedings of Machine Learning Research. NeurIPS*, 2020.
- [3] S. Rajaa and J. K. Sahoo. Convolutional feature extraction and neural arithmetic logic units for stock prediction. In *International Conference on Advances in Computing and Data Sciences*, pages 349–359. Springer, 2019.