

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:// @shangethr
Google Scholar:// Shangeth Rajaa

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/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 Flntech, Bangalore, India.
- Computer Vision Developer at Science and Technology Center, Chennai, India.
- Member | Society for Artificial Intelligence and Deep Learning(saidl.in).

EXPERIENCE

SKIT.AI(VERNACULAR.AI) | MACHINE LEARNING RESEARCHER

Jun 2021 – Present | Bangalore

- Speech Synthesis, Prosody Transfer, Voice Conversion, Prosody for SLU.
- Conversational agents with LLM, compliance/goal optimization with DPO/RLHF, Multi-Modal LLM(Speech).

SPEECH AND LANGUAGE LAB, NTU | RESEARCH ASSISTANT

Aug 2020 – Jun 2021 | Singapore

- Unsupervised/Semi-Supervised speech and speaker representations learning.
- Speaker Profiling (Height, Age, and Gender) and Accent Recognition/Accented Speech Recognition.

IBM RESEARCH LABS | RESEARCH INTERN

May 2020 – Aug 2020 | Delhi, India

- Developed novel quality metrics and data transformations for structured data.
- Optimization of Data Quality transformations with Deep Reinforcement Learning.

INRIA | RESEARCH COLLABORATOR

Apr 2019 – May 2020 | Paris, France

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

SELECTED PROJECTS

- **wavencoder**, an open-source python package for audio encoder models and transforms for training deep learning tasks.
- Unsupervised Speech Representation with Information Theoretical Approaches 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 *Proceedings of Machine Learning Research*. NeurIPS CD, 2020.
- [3] S. Rajaa. Improving End-to-End SLU performance with Prosodic Attention and Distillation. In *Proc. INTERSPEECH 2023*, pages 1114–1118, 2023.
- [4] S. Rajaa, K. Anandan, S. Dalmia, T. Gupta, and E. S. Chng. Improving spoken language identification with map-mix. In *ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 1–5, 2023.
- [5] S. Rajaa, S. Dalmia, and K. Nethil. Skit-s2i: An indian accented speech to intent dataset, 2022.
- [6] 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.
- [7] S. Rajaa, P. V. Tung, and C. E. Siong. Learning speaker representation with semi-supervised learning approach for speaker profiling, 2021.