SUHAS BN

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EDUCATION

The Pennsylvania State University, University Park, PA *Aug 2019 - May 2021 (expected)*
MS in Electrical Engineering specializing in Signal & Image Processing

PES University, Bangalore, India *Aug 2014 - May 2018*
B.Tech in Electronics & Communication Engineering specializing in Signal Processing

WORK EXPERIENCE

Penn State University, University Park *Jan 2020 - May 2020*
Instructional Assistant *College of Informational Sciences & Technology*

- Assistant for DS 310 (Machine learning for Data Analytics) under Dr. Fenglong Ma.
- Handling student clarifications, lab sessions, grading exams and overall functioning of the class

Indian Institute of Science, Bangalore *May 2018 - Aug 2019*
Project Assistant *SPIRE Lab, Electrical Engineering Department*

- Collected and analyzed speech & video signals to classify ALS and Parkinsons' subjects from healthy controls. Paper presented at INTERSPEECH 2019, Austria.
- Assisted classification of patients with Obstructive Sleep Apnea (OSA) using Hidden Markov Models.
- Responsible for collecting speech data and SPIRE Lab alumni relations for the year 2018-19.

SKILLS

Languages	MATLAB, Python, C, C++, Bash, SQL
Software & Tools	Kaldi, Keras, Tensorflow, Numpy, SciPy, Matplotlib, spaCy OpenCV, Scikit-learn, LaTeX, Arduino, Git, FFmpeg

COURSEWORK

Graduate Level

• Neural Networks, Graphs & Algorithms, • Probability, Random Variables & Stochastic Processes, • Emerging Topics in Networking, • Wavelets & Sparse Signal Processing, • Convex Optimization, • Digital Image Processing II

Undergraduate Level

• Linear Algebra, • Digital Signal Processing, • Computer Vision, • Pattern Recognition & Classification, • Fuzzy Systems, • Research Methodology, • Artificial Neural Networks

MOOC

Machine Learning (Coursera)
Deep Learning (Coursera)
Data Science and Machine Learning using Python (Udemy)
In Progress : Intel Edge AI for IoT Developers Nanodegree program (Udacity)

AWARDS & SCHOLARSHIPS

2019	-	Intel Edge AI Scholarship Program
2018	5^{th}/2400	Power of Connected Hackathon, Honeywell India
2017	354^{th} rank	Google Code Jam, Qualification Round
2014	4^{th}/140	NRC India and IIT-Bombay Robotics Tournament
2010	1^{st} Overall	RoboMech Challenge, Technophilia Systems
2007	75^{th} rank	International Mathematics Olympiad (IMO)

PUBLICATIONS

• **Suhas, BN**, Bhagavat, S., Vimalanand, V. & Suresh, P. (2018, July). Wireless Sensor Networks Based Monitoring of Railway Tracks. In 2018 International CET Conference on Control, Communication, and Computing (IC4) (pp. 187-192). IEEE. (DOI: 10.1109/CETIC4.2018.8531029)

• **Suhas, BN**, Patel, D., Rao, N., Belur, Y., Reddy, P., Atchayaram, N.,Yadav, R., Gope, D., & Ghosh, P. K. (2019). Comparison of Speech Tasks and Recording Devices for Voice Based Automatic Classification of Healthy Subjects and Patients with Amyotrophic Lateral Sclerosis.
Proc. INTERSPEECH 2019, 4564-4568. (DOI:10.21437/Interspeech.2019-1285)

Accepted for Poster Presentation at ICASSP 2020

• Mallela, J., Illa, A., **Suhas, BN**, Udupa, S., Belur,Y., Atchayaram, N., Yadav, R., Reddy, P., Gope, D., Ghosh, PK, "Voice based classification of patients with amyotropic lateral sclerosis, parkinson's disease and healthy controls with CNN-LSTM using transfer learning," In Proc. IEEE International Conference on In Acoustics, Speech and Signal Processing (ICASSP), May 2020. (Draft)

Accepted for oral presentation at SPCOM 2020

• **Suhas, BN**, Mallela, J., Illa, A., Belur,Y., Atchayaram, N., Yadav, R., Reddy, P., Gope, D., Ghosh, PK, "Speech task based automatic classification of ALS and Parkinson's Disease and their severity using log Mel spectrograms" (Draft)

TALKS

Introduction to Music Information Retrieval, Audio licensing & Blockchains — *Nov 2018*
Electrical Engineering Department, Indian Institute of Science

Performance characterization of Sound Recorders — *Jul 2019*
Electrical Engineering Department, Indian Institute of Science

MIMO in 5G Wireless Systems — *Dec 2019*
School of EECS, Penn State University

EXTRA CURRICULARS

• Playing Indian Percussions • Speedcubing • Quizzing • Chess • Yoga

REFERENCES

Dr. Prasanta Ghosh, Indian Institute of Science, India
Dr. Fenglong Ma, Penn State, PA
Suresh Padmanabhan, Collins Aerospace, India
Narendra KC, Nitte Meenakshi Institute of Technology, India