Shubhr Singh

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Education

2020 – Current **Ph.D., Artificial Intelligence & Music, Centre for Digital Music**, Queen Mary University of London..

2018 – 2019 **M.Sc. Sound & Music Computing (Distinction)**, Queen Mary University of London .
Thesis title: *Modelling audio dataset with noisy labels using noise adaptation layer and noise robust loss function*.

2004 – 2008 **Btec. Electronics & Telecommunications**, KIIT, India.

Research Publications

1. S. Singh, E. Benetos, H. Phan, and D. Stowell, "LHGNN: Local-Higher Order Graph Neural Networks for Audio Tagging and Classification," *(Under review), IEEE MLSP*, 2024.
2. C. Steinmetz, S. Singh, M. Comunita, *et al.*, "ST-ITO: Controlling Audio Effects For Style Transfer With Inference-Time Optimization," *(Under review), ISMIR*, 2024.
3. S. Singh, C. Steinmetz, E. Benetos, H. Phan, and D. Stowell, "Audio Tagging Graph Neural Networks," *(IEEE Signal Processing Letters)*, 2024.
4. C. Vahidi, S. Singh, E. Benetos, *et al.*, "Perceptual musical similarity metric learning with graph neural networks," 2023.
5. I. Nolasco, S. Singh, V. Morfi, *et al.*, "Learning to detect an animal sound from five examples," *arXiv e-prints*, arXiv–2305, 2023.
6. S. Singh, H. Phan, and E. Benetos, "Hypernetworks for sound event detection: A proof-of-concept," 2022.
7. S. Singh, E. Vidana-Villa, E. Grout, *et al.*, "Few-shot bioacoustic event detection at the dcase 2022 challenge," *arXiv preprint arXiv:2207.07911*, 2022.
8. S. Singh, "Intelligent control method for the dynamic rangecompressor: A user study," *Journal of the Audio Engineering Society*, 2021.
9. S. Singh, H. Bear, E. Benetos, *et al.*, "Prototypical networks for domain adaptation in acoustic scene classification," 2021.
10. S. Singh, A. Pankajakshan, and E. Benetos, "Audio tagging using linear noise modelling layer," 2019.

Experience

Jan2024 – Current **Teaching Fellow**, Queen Mary University of London.
Currently teaching music informatics to postgraduate and doctoral students.

Experience (continued)

Oct 2023 – Current
Enrichment Student, The Alan Turing Institute.
Received placement award from the Alan Turing Institute to conduct my PhD research from their HQ.
Working on collaborations to develop domain agnostic graph neural network models .

Mar 2021 – Mar 2023
Co-organiser, DCASE Challenge, Task 5.
Developed the baseline repository for the challenge.
Managed the web page for the task.

Sep 2019 – Mar 2020
Research Assistant, Queen Mary University of London.
Worked on industry sponsored project (Steinberg Media Technologies GmbH) to automate parameter prediction for dynamic range compressor using siamese neural network.
Integrated the model with a vst plugin to run on digital audio workstations.

May 2016 – Sep 2017
Manager, Kpmg India Pvt. Ltd.
Managed projects on Software License Compliance, Intellectual Property Assessment, and Contract optimization using software usage analysis.
National lead for SAP license compliance advisory projects
Technical lead for KPMG compliance tool.

May 2015 – Apr 2016
Assistant Manager, Kpmg India Pvt. Ltd.
Developed proprietary tool for detecting non-compliant sofware usage. Managed development and deployment of the tool across different clients.
Developed a machine learning model to predict software non-compliance of companies based on historical usage & purchase data.

Dec 2012 – Apr 2015
Consultant, Ernst & Young India Pvt. Ltd.
Conducted software compliance audits.
Developed in-house software discovery tool.

Aug 2008 – Nov 2012
Software Engineer, Infosys Consulting
Worked as a C# developer on Infosys BPM's Proton automation tool.

Skills

Programming — Python, JUCE (C++),Matlab
Machine Learning — Pytorch
Audio — Librosa, Torchaudio,JUCE

Certification

2018 **Machine learning Engineer Nanodegree- Udacity**,