

Krishna Subramani

CONTACT INFORMATION	subramani.krishna97@gmail.com https://krishnasubramani.web.illinois.edu/	
EDUCATION	University of Illinois Urbana-Champaign, USA Ph.D. Candidate in Electrical Engineering, GPA: 4.0/4.0 <ul style="list-style-type: none">Advisor: Prof. Paris Smaragdis Indian Institute of Technology Bombay, India B.Tech, M.Tech (Dual Degree) in Electrical Engineering, GPA: 9.24/10.0 <ul style="list-style-type: none">Thesis: Variational Parametric Models for Audio Synthesis, Advisor: Prof. Preeti RaoReceived the Undergraduate Research Award for outstanding research and thesis contributions	2020-2025 2015-2020
PUBLICATIONS	Accepted : <ul style="list-style-type: none">Krishna Subramani, Jean-Marc Valin, Jan Bueche, Paris Smaragdis, Mike Goodwin. “<i>Noise-Robust DSP-Assisted Neural Pitch Estimation with Very Low Complexity</i>”, International Conference on Acoustics, Speech, and Signal Processing 2024Krishna Subramani, Jean-Marc Valin, Umut Isik, Paris Smaragdis, Arvinth Krishnaswamy. “<i>End-to-end LPCNet: A Neural Vocoder With Fully-Differentiable LPC Estimation</i>”, Interspeech 2022Krishna Subramani, Paris Smaragdis, “<i>Point Cloud Audio Processing</i>”, IEEE Workshop on Applications of Signal Processing to Audio and Acoustics 2021, Best Paper AwardAn Zhao, Krishna Subramani, Paris Smaragdis, “<i>Optimizing Short-Time Fourier Transform Parameters via Gradient Descent</i>”, International Conference on Acoustics, Speech, and Signal Processing 2021Krishna Subramani, Preeti Rao, Alexandre D’Hooge. “<i>VaPar Synth - A Variational Parametric Model for Audio Synthesis</i>”, International Conference on Acoustics, Speech, and Signal Processing 2020Krishna Subramani, Srivatsan Sridhar, Rohit M. A., Preeti Rao. “<i>Energy-Weighted Multi-Band Novelty Functions for Onset Detection in Piano Music</i>”, National Conference on Communications 2018 Preprints : <ul style="list-style-type: none">Krishna Subramani, Paris Smaragdis, Takuya Higuchi, Mehrez Souden “<i>Rethinking Non-Negative Matrix Factorization with Implicit Neural Representations</i>”Krishna Subramani, Paris Smaragdis, “<i>Learning to Invert Reassigned Spectra</i>”Krishna Subramani, Paris Smaragdis, “<i>Keyword Spotting with Point Clouds</i>”HaDi Maboudi, Krishna Subramani, Hamid Soltanian-Zadeh, Shun-ichi Amari, Hideaki Shimazaki. “<i>Learning Complex Representations from Spatial Phase Statistics of Natural Scenes</i>”Krishna Subramani, Preeti Rao, “<i>HpRNet : Incorporating Residual Noise Modeling for Violin in a Variational Parametric Synthesizer</i>”	
RESEARCH EXPERIENCE	Research Assistant in the Audio Lab, UIUC Advised by Prof. Paris Smaragdis <ul style="list-style-type: none">Research on signal processing and machine learning for audio Applied Scientist Intern, AWS Palo Alto Advised by Jean-Marc Valin <ul style="list-style-type: none">Research on Machine Learning for Signal Processing Variational Parametric Models for Audio Synthesis, Master’s Thesis Advised by Prof. Preeti Rao	2020 to present 2023,2022,2021 2019-2020
	Learning Complex Representation from Natural Scene Statistics, Kyoto University Research Intern Advised by Prof. Hideaki Shimazaki	2018
	Automatic Musical Assessment Systems, Music Technology Group Research Intern Advised by Prof. Xavier Serra	2018

MISCELLANEOUS
ACHIEVEMENTS

- Received the Honors Mark for being in the top 3 of the class for Pattern Recognition, Real-time Audio Processing during my exchange semester
- One among 5 people across India to receive the Erasmus+ scholarship for a semester exchange
- Ranked 1320 ($\approx 150,000$) in the 2015 IIT-JEE Entrance Examination
- Recipient of the Kishore Vaidgnyanik Protsahan Yojna program (top 200 students in India) to pursue higher education at the Indian Institute of Science
- Have learnt Hindustani (North Indian) Classical Music upto Sangeet Praveen (≈ 5 years training)