

Rithesh Kumar

2nd year Master's student

+1 438-921-8291 | rithesh.kumar@umontreal.ca | <https://github.com/ritheshkumar95> | [LinkedIn](#)

Summary

I am a 2nd year graduate student in Computer Science (Artificial Intelligence) at Mila lab - Université de Montréal, supervised by Prof. Yoshua Bengio. My core research interests are speech synthesis and generative models for sequential data.

Experience

Artificial Intelligence Researcher, Lyrebird.ai , Montréal, Québec	Nov 2018—Current
Research Intern, Microsoft Research - Montréal , Québec	Feb 2018—Sep 2018
Research Intern, Lyrebird.ai , Montréal, Québec	May 2017—Feb 2018
Research Collaborator (remote), Mila - Université de Montréal	Apr 2016—May 2017
Research Intern, Serre Lab , Brown University	Jun 2016—Aug 2016
Research Intern, Artifacia , Bangalore	Dec 2015—Jan 2016

Education

M.Sc, Computer Science (Artificial Intelligence) Université de Montréal (Mila), Montréal, Québec Research Supervisor: Prof. Yoshua Bengio CGPA: 4.15 / 4.3	Sep 2017—Current
B.E, Computer Science and Engineering Anna University, Chennai, Tamil Nadu CGPA: 8.63 / 10.0	Aug 2013—Apr 2017

Publications

Maximum Entropy Generators for Energy-Based Models [\[paper\]](#)

Rithesh Kumar, Anirudh Goyal, Aaron Courville, Yoshua Bengio

Submitted to ICML 2019 Conference Track

Harmonic Recomposition using Conditional Autoregressive Modeling [\[paper\]](#)

Kyle Kastner, Rithesh Kumar, Tim Coojimans, Aaron Courville

Published as Poster Presentation - [The 2018 Joint Workshop on Machine Learning for Music](#)

ObamaNet: Photo-realistic lip-sync from text [\[paper\]](#) [\[website\]](#)

Rithesh Kumar, Jose Sotelo, Kundan Kumar, Alexandre de Brébisson, Yoshua Bengio

Published as Oral Presentation - [NIPS 2017 ML for Creativity and Design Workshop](#)

SampleRNN: An Unconditional End-to-End Neural Audio Generation Model [\[paper\]](#)

Soroush Mehri, Kundan Kumar, Ishaan Gulrajani, Rithesh Kumar, Shubham Jain, Jose Sotelo, Aaron Courville, Yoshua Bengio

Published as Poster Presentation - [ICLR 2017 Conference Track](#)

Selected Projects

Reproducing Neural Discrete Representation Learning [\[github\]](#) [\[report\]](#)

Jan 2018–Apr 2018

Rithesh Kumar, Tristan Deleu, Evan Racah - Mila

Reproduced and analyzed Vector-Quantized Variational Autoencoders (VQ-VAEs) ([IFT 6135 - Representation Learning](#) course final project)

Text-to-Speech Synthesis

May 2017–Feb 2018

With Jose Sotelo, Kundan Kumar, Alexandre de Brébisson - Lyrebird.ai / Mila

Co-developed deep learning methods to perform text-to-speech, grapheme-to-phoneme conversion, speech denoising and neural vocoder reconstruction.

Reproducing WYSIWYG: Visual Markup Decompiler [\[github\]](#)

Dec 2016–Jan 2017

Rithesh Kumar, Rithesh Rohan, U. Sivashanmugam - SSNCE

Developed a software tool to deconstruct image of math equations to its corresponding LaTeX markup (Undergraduate final project)

Relevant Courses and Skills

Graduate

[IFT 6135 - Representation Learning](#) - Prof. Aaron Courville

[COMP 767 - Reinforcement Learning](#) - Prof. Doina Precup

[IFT 6269 - Probabilistic Graphical Models](#) - Prof. Simon Lacoste-Julien

[IFT 6080 - Duckietown \(Autonomous Vehicles\)](#) - Prof. Liam Paull

MOOCs

[Data Science Specialization](#) - Johns Hopkins University (Coursera)