ARYAN MISRA

INFO

PHONE
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EMAIL
aryanmisra@outlook.com

LINKS

Github (@aryanmisra)

LinkedIn (@aryan-misra)

Portfolio Website (aryanmisra.com)

SKILLS

Python - Tensorflow, Pytorch, Keras, Matplotlib, Pandas, etc.
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Microsoft Azure
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Node.js
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Java Programming
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LANGUAGES

English
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Bengali
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French
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PROFILE

I'm a 15-year-old student from Toronto, Ontario. I've always been passionate about finding solutions to meaningful problems. Recently, I've been learning about machine learning and I'm excited to be working exponential technologies that could make such a huge impact on the world!

EMPLOYMENT HISTORY

Instructor, LSA/TAC
Toronto, ON

Oct 2018 – Mar 2019

Manage, lead and teach technology programs at Toronto French Schools, and Northmount School.

EDUCATION

TOPS @ Marc Garneau Collegiate Institute, (Grade 10)
Toronto

Sep 2017 – Present

According to Maclean's Magazine, the TOPS Program at Marc Garneau Collegiate Institute is one of Canada's most prestigious math and science programs.

COURSES

Machine Learning (Coursera), Stanford University
Oct 2018 – Dec 2018

Intro to Genomic Technologies (Coursera), John Hopkins University
Apr 2019 – May 2019

Python for Genomic Data Science (Coursera), John Hopkins University
May 2019 – Present

AWARDS

UOIT Engineering Robotics Competition
University of Ontario Institute of Technology

- 1st Place Award
- Engineering Excellence Award

PROJECTS

Skin Lesion Analysis Online Tool
Nov 2018 – Dec 2018

Built and deployed a skin lesion classification model using convolutional neural networks. Model classifies 7 different types of skin lesions by taking an image input, to an 85% accuracy on lab images. Trained on the HAM10000 dataset, built with Keras, deployed with TensorflowJS. Article published on Towards Data Science on this subject. Click here for web application. (aryanmisra.com/skinpredictapp.html)

Sinewave Denoising
Feb 2019

Using time-series analysis with LSTMs to predict sinewaves from noisy inputs. Click here.

Fast Style Transfer Web App
Mar 2019 – Apr 2019

Demonstrates use of the Fast Style Transfer Algorithm proposed by Johnson et al. Built on top of ML5JS's Tensorflow JS libary. Try it our here.

Seq2Seq Character Based Machine Translation Web App
Mar 2019

This demonstrates a pre-trained sequence-to-sequence model that can be used in the browser. It is based on the Keras LSTM-seq2seq example and uses a character based model to translate the text (as opposed to a word based model). Try it out here.

Image Super Resolution App (Powered by TF2.0)
May 2019

NeuraScale is a Super Resolution Generative Adversarial Network (SRGAN) with the purpose of upscaling image resolutions by a factor of two using deep learning. This way, a picture which initially appears pixellated and/or blurry can be modified so that the features are quite more distinguishable. The model is trained on the COCO unlabeled2017 dataset. Github link.

PUBLICATIONS

Logistic Regression Application Article
Towards Data Science
Nov 2019

Published an article on "Towards Data Science" regarding the applications of Logistic Regression, specifically spam classification. Read here.

Skin Lesion Classification Project Article
Towards Data Science
Dec 2018

Published an article on my Skin Lesion Classification project and also talk about Convolutional Neural Networks. Read here.

Capsule Networks: The New Deep Learning Network
Towards Data Science
Jan 2019

An overview of the "Dynamic Routing Between Capsules" paper, published by Geoffrey Hinton. Gives an overview of how Capsule Networks work and their current problems. Read here.

Using RNNs For Machine Translation
Towards Data Science
Mar 2019

An introduction to Recurrent Neural Networks, LSTM, and their applications in Machine Translation. Read here.

Making Art With A Webcam

Towards Data Science

Mar 2019

An implementation and explanation of Style Transfer, slow and fast. Read here.

The Protein Folding Problem

Medium Science

Apr 2019

Recent advancements on the ultimate problem in biology. Read here