Russel Shawn Dsouza

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Education National Institute of Technology Karnataka, India 2017-2021

B. Tech in Electronics and Communications Engineering

Little Rock Indian School, Karnataka, India

2004-2017

K-12

Projects Computational Histopathology

> Built a supervised learning based model in PyTorch to perform the segmentation of nuclei in H&E stained histopathology images of kidney tissues.

Detecting Ponzi schemes in Ethereum smart-contracts

Used a semi-supevised learning based model, built using PyTorch and torchtext, on raw bytecode of Ethereum smart contracts mined using Google BigQuery.

Predicting truth level of news articles

Built a classifier using PyTorch and torchtext to classify news articles into true, mostly true, half true, barely true, false and pants-fire.

Face detection and recognition

Implemented real-time face detection and recognition using OpenCV, scikit-learn and

dlib on a Raspberry Pi.

Technical Skills Languages: Python, MATLAB, C, Verilog, JavaScript

Frameworks/Libraries: PyTorch, scikit-learn, scikit-image, OpenCV, pandas

Web/App development: Django, React, JavaScript

Miscellaneous: git, Linux, Google BigQuery, Xilinx Vivado, LATEX

Experience Research Assistant

Nov 2019 - Present

under Dr. Shyam Lal, NITK

Karnataka, India

Working on the design and development of an automated colon cancer detection system from H&E stained histopathology images.

Research Intern

May 2019 - July 2019

under Dr. Shyam Lal, NITK

Karnataka, India

Worked on the segmentation of H&E stained histopathology images of kidney tissues to detect kidney cancer. Studied fundamentals of image processing, machine learning, deep learning, computer vision.

Frontend Developer

August 2018 - April 2018

IRIS, NITK

Karnataka, India

Worked on frontend design and development for 'IRIS', a digital portal for all administrative and academic activities in NITK, with five thousand daily active users.

Python Developer

May 2018 - July 2018

Pinnacle Media, Manipal, India

Karnataka, India

Worked on implementing real-time face detection and recognition using OpenCV, dlib and scikit-learn on Raspberry Pi

Computer Vision, Reinforcement Learning, Bionics, Augmented Reality

Interests