Russel Shawn Dsouza

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Education National Institute of Technology Karnataka, India

2017-2021

B. Tech in Electronics and Communications Engineering

CGPA: 8.7

Little Rock Indian School, Karnataka, India

2004-2017

K-12

Notable 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 to detect kidney cancer

Detecting Ponzi schemes in Ethereum smart-contracts

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

Detecting fake news using deep learning

Built a classifier using PyTorch and torchtext to identify the truth level of news articles from human verified facts and statements.

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, Rust, C, Verilog, JavaScript

Frameworks/Libraries: PyTorch, torchvision, scikit-learn, OpenCV

Web development: Django, ReactJS, GatsbyJS

Tools: git, Docker, Linux, Google BigQuery, Xilinx Vivado, LATEX

Hardware: Xilinx Artix 7 FPGA, Arduino, Raspberry Pi

Experience

Research Assistant

Nov 2019 - Present

under Dr. Shyam Lal, NITK

Karnataka, India

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

Research Intern

May 2019 - July 2019

under Dr. Shyam Lal, NITK

Karnataka, India

Worked on reproducing state-of-the-art deep learning architectures for the semantic segmentation of H&E stained histopathology images of kidney tissues.

Frontend Developer

August 2018 - April 2019

IRIS, NITK

Karnataka, India

Worked on building the frontend for the official student management portal 'IRIS' with more than five thousand daily active users including students, faculty, administrators and alumni. Mentored a freshman intern on frontend testing using JavaScript.

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

 ${\bf Interests}$

Neuroscience, Computer Vision, Neuromorphic computing, Cybernetics, and Augmented Reality