Aarya Patel

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EDUCATION

Jaypee Institute of Information Technology, Noida — *B.Tech in Computer Science*

August 2016 - July 2020

CGPA: 8.2 / 10

WORK EXPERIENCE

Vitrana, Noida — *Associate Data Scientist*

Aug 2020 - Present

- Working on leveraging an end-to-end deep learning model for entity recognition, relation extraction, and coreference -resolution from bio-medical literature articles.

Aiota Labs, Noida — *Robotics Intern*

May 2019 - July 2019

- Simulated a Parrot AR.Drone in the Gazebo environment. Implemented code using PyQT to control the drone using keyboard controls in the virtual environment.
- Wrote python scripts to use sensory data of IMU and front-camera to predict steering angle and collision probability via an efficient and versatile pre-trained Deep Convolutional Neural Network (DCNN).
- Developed policies for autonomous UAVs using Reinforcement Learning techniques such as Q-Learning to train UAVs for navigation tasks in a simulated setting.

IIIT, Delhi— *Research Intern*

May 2018 - Aug 2018

- Developed a novel multi-modal and real-time technique to predict the popularity of social media posts and their headline under the ACM MultiMedia 2018 grand challenge.
- Extracted multi-modal features from images and metadata using CNN and machine learning techniques to output the popularity of social media posts.
- Achieved **MAE of 1.063, MSE of 2.1767, and Spearman-rho of 0.747.**

PUBLICATION

Vidyarthi, A., Patel, A. Deep assisted dense model based classification of invasive ductal breast histology images. ***Neural Comput & Applic*** **(2021).** https://doi.org/10.1007/s00521-021-05947-2

SELECTED PROJECTS

Intracranial Hemorrhage Detection: Proposed a novel CAD system to classify and if present, localize ICH and its five subtypes from a set of CT scans using deep learning. Visualized region localizing the hemorrhage using attention maps. Achieved the best **weighted mean log loss of 0.04967, and the best AUC-ROC 0.9832.**

Pneumothorax Classification and Segmentation: Proposed a new segmentation architecture named PTXUnet to detect, diagnose, and segment Pneumothorax from given chest X-rays. Achieved a **classification accuracy of 92.27% and a mean dice coefficient of 84.45%.**

AREA OF INTEREST

Algorithms

Statistics & Probability

Machine Learning

Deep Learning

Computer Vision

SKILLS

Python | C++ | C | MySQL |

JS | Redis | PostgreSQL | MongoDB | PHP | Django

Keras | Tensorflow | PyTorch | SKlearn | OpenCV | Numpy

ROS(Robot Operating System) | Gazebo | RViz

Android | Linux | GCP | Bash

ELECTIVES

Artificial Intelligence

Large Scale Database Systems

Introduction to DevOps

Blockchain Technologies

CERTIFICATES AND SCHOLARSHIPS

Udacity:

AI for Healthcare Nanodegree

Robotics Software Engineer Nanodegree

Computer Vision Nanodegree

Awarded with Udacity-Pytorch Scholarship from Facebook

Coursera:

Deep Learning Specialization by Andrew Ng

Machine Learning with TensorFlow on GCP

Image understanding with Tensorflow on GCP

Sequence Models for Time Series and Natural Language Processing on GCP