Sahil Unagar

Email: sahilunagar99@gmail.com **Phone:** +91 9724614793
portfolio LinkedIn Github Codeforces Codechef

EDUCATION

Sardar Vallabhbhai National Institute of Technology (NIT) Surat, India Jul 2016 - June 2021
5-year Integrated M.Sc. in Applied Mathematics
Cumulative GPA: 8.71/10
Major Courses: Data Structures, Algorithms, DBMS, Operating System, Discrete Mathematics, Linear Algebra, Calculus, Statistics, Probability, Scientific Computing, Operations Research

EXPERIENCE

Summer Research Fellowship, Central University of Tamil Nadu, India May - July 2019

Deep Learning for Large Scale Image Classification problem

- Mentor: Dr. Ramesh Venkadachalam (Professor, Mathematics)
- A fellowship sponsored by Indian Academy of Sciences (IAS) (one of top 50 selected students across india)
- Built and analysed Convolutional Neural Network model for image classification on the dataset of cartoon characters having 42 different classes with highly imbalanced distribution
- Accessed the effect of balancing techniques like Under/Over sampling, class-weighted learning while using transfer learning on pretrained architectures (ResNet and VGG19)
- Got 75% accuracy on the test dataset and ranked 26th position on leaderboard

TECHNICAL PROJECTS

URL Shortener - web application May 2020

- A Java based Webapp that let's you generate short URL from a Long URL. It allows user to set their own custom short URL as well.
- Technology used: Java, Spring Boot for Dependency injection and Model View Controller, Hibernate and MySQL for Database Manipulation, IntelliJ IDEA for project development

Number Plate Recognition Sep-Oct 2019

- A system which can detect multiple number plates from the live video feed of a traffic, and can also recognise registration number from detected number plate.
- Technology used: Python3, Keras(with Tensorflow as backend), YOLOv2 model for Object Detection, OCR for registration number extraction, Jupyter Notebook, Google Colab

Detection of 21-cm Hydrogen line December 2017

- To detect the Hydrogen line of 21cm wavelength emitted from Pulsars, I applied a Fourier Transform algorithms on detected radio signals to denoise data

TECHNICAL SKILLS

	Programming	**Tools**	**Subjects**
Experienced	C++, Python	Keras, SKlearn, Jupyter-Notebook, GIT	Machine learning, DBMS, OOP
Basic	Java, C	Django, Spring-Boot, MySQL, LaTeX	OS, Networking

ACADEMIC ACHIEVEMENTS

- Completed 5 Deep Learning Specialization courses with above 95% grade points (deeplearning.ai)
- Got 2nd rank in SVNIT in Discovry coding challange by Scalar academy
- Ranked in top 5 among 50 student in the "Introduction to Python workshop" held at SVNIT