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Education

August 2019 - Present	🔖	**B.Tech ECE,** Jamia Millia Islamia, New Delhi, (9.1/10 till 2nd Sem)
April 2004 - March 2019	🔖	**Science Stream,** The Frank Anthony Public School, New Delhi, (98%, ICSE 12th)

MOOC

Mar 2021 (Issued)	🔖	Machine Learning: From Basics to Advanced
May 2021 (Issued)	🔖	Python and Flask Framework
Oct 2020 (Issued)	🔖	Developing Innovative Ideas for New Companies: The First Step in Entrepreneurship, Finance for Startups

Work Experience

Research

May 2021 - July 2021   🔖   **SUMMER RESEARCH INTERN,** IIIT-Allahabad.
Worked on the topic of "Automatic Detection of Image Splicing", under Prof. Anupam Agarwal, in *Interactive Technologies and Multimedia Research (ITMR) Lab.*

Did literature review and comparative analysis, implemented baselines from scratch and ran various experiments/simulations, cross-evaluated the SOTA papers with different datasets and out-of-distribution training/testing environments. Concluded a study that the latest methods have an overestimated performance and are unsuitable for real-world applications.

April 2021 - Present   🔖   **UNDERGRADUATE RESEARCHER,** Jamia Millia Islamia.
Working on a problem pertaining to Facial Mask Detection, under Prof. Sarfaraz Masood.

Designing a research participation form and collecting a dataset from scratch for our purpose. Exploring various benchmark Facial Recognition datasets, literature review and analysis, applying latest Object Detection techniques on a novel sythentic dataset we developed for the purpose.

Engineering

December 2020 - January 2021	🔖	**Web Development & Design Intern,** The Spark Foundation. Completed two tasks of building a demo-banking system and making a donation web-page with payment gateway integration.
December 2020 - February 2021	🔖	Web Development Volunteer, M.I.N.D.S Responsible for the development and timely updating of their website.

Open Source Participation

October 2020 - November 2020	🔖	Succesfully completed the Hacktoberfest'20.
December 2020 - January 2021	🔖	Contributed in Winter of Code, IIT Kharagpur (kWoC).

Pro Bono

January 2021 - Present	🔖	**Youth Ambassador,** *HundrED Global Organisaton.*

Projects

Machine Learning

Mini Projects Collection   Real and fake bank notes classification, Forest Fire Regression Analysis, Heart attack risk classification, Metals and rocks classification, Linear Regression analysis on 3 miscellaneous data-sets.

OpenCV Projects
- *Air-Piano*, an air-based piano enabling the person to play through hand(fingertip) movements.
- *Air-Drum System*, an air-based drum beat generator.
- *Background Color Detection*, uses 2 techniques to detect a suitable background for the input image.
- Document Scanner, using static clicked images; and Barcode Scanner, using pyzbar library; and OMR Bubble Scanner, calculating and displaying the result obtained on the OMR sheet.

Deep Learning Practice
- *Face Mask Detection*, a real-time face mask detection project in which it is detected whether the person is wearing a face mask or not.
- Human Emotion Detection, Pneumonia Prediction models.
- Digit classification, Fashion apparel classification and California House price prediction using MLP.

Web Development

Banking System   The project contains a simple banking system that enables to transact between the customers. It uses HTML, CSS, bootstrap, PHP, and MySQL, with the local server provided by the XAMPP.

Website Template for InnerveSOC   As a part of the InnerveSOC competition, designed a complete website template for Innerve Tech-Fest 2020, IGDTUW. **I was the adjudged winner.**

Miscellaneous

Skills

Languages	Python, Java, HTML/CSS, PHP, Javascript
Libraries	NumPy, Pandas, Matplotlib, Sklearn, OpenCV, Keras, TensorFlow, Flask.
Database	MySQL, PostgreSQL
Interpersonal	Communication, Public Speaking, Critical Thinking, Team Leadership, Team Management.

Awards

June 2019   **INSPIRE Science Award For Top 1%:** Scholarship for Higher Studies by Govt. of India.

September 2019   **Mr. Harbinder Singth Dugal Rolling Trophy:** Awarded for Proficiency in Science ISC-XII.

August 2017   **Mr. G W Mayer's Merit Scholarship:** Awarded for excellence in Mathematics and Science.

Shanker Sumeda Rolling Trophy: Awarded for Excellence in Academics.