UTKARSH MATHUR (Data Scientist)

I'm a Data Scientist in Neural Networks and Deep Learning, Programming with Python, C++, JAVA, and Perl, and content writing. I'm pursuing B.Tech. in Polymer Science and Engineering at Indian Institute of Technology, Roorkee and I aim to do Masters in Data Science.

FORMAL EDUCATION

YEAR	DEGREE / BOARD	INSTITUTE / BOARD	Score
2022	B.Tech. Polymer Science and Engineering	Indian Institute of Technology, Roorkee	6.12 / 10
2018	Twelfth	Central Board of Secondary Education (CBSE)	89.6%
2016	Tenth	Central Board of Secondary Education (CBSE)	9.6 / 10

ACADEMIC & PROFESSIONAL COURSES

Deep Learning Specialisation (Coursera), **Data Structures and Algorithms in Java** (NPTEL), **IEE-03 Artififcial Neural Networks** (IIT Roorkee), **Machine Learning A-Z** (Udemy), **Data Science using Python** (EICT IIT Roorkee), **Big Data Specialization** (Coursera)

SKILLS

- Object Oriented Programming (**OOP**), Data Structures and Algorithms (**DSA**), Machine Learning (**ML**), Artificial Neural Network (**ANN**), Deep Learning (**DL**), Computer Vision (**CV**), Natural Language Processing (**NLP**), Big Data
- **Python**, **C++**, Java, Perl, **MATLAB**, **Hadoop**
- **NumPy**, **Pandas**, **Matplotlib**, Seaborn, **TensorFlow**, **Keras**, PyTorch, OpenCV, **PIL** (Python Imaging Library)

EXPERIENCE

Research Intern | IIT ROORKEE | 4 Months (Present)

- Working as a research intern on a **Deep Learning** project under Dr. Mayank Goswami, Department of Physics, IIT Roorkee.
- Learning valuable Data Science skills like Data annotation, Data preprocessing, and Hyperparameter tuning.

Research Intern | IIT ROORKEE | 1 Month

- Worked as a research intern on a **Material Simulation** project under Dr. Gaurav Manik, Department of Polymer and Process Engineering, IIT Roorkee.
- Scripted an extended library in **Perl** for the Forcite module of Material Studio, that helped in calculating the contact angle and motion of a liquid droplet on an inclined surface coated with super-hydrophobic polymers.
- Learned how to work with a team of researchers and how to tailor a software code according to requirements.

PROJECTS

Facial Expression Recognition | Group Project

- Collaborated with a colleague over a comparative study of various Machine Learning and Computer Vision models over the FER2013 dataset.
- I worked on Deep Learning Models to build a Facial Expression Recognizer while my colleague worked over conventional Machine Learning model.

CIFAR -10 | Personal Project

- Comparative study of Neural Networks, Convolution Neural Networks, and ResNet models over CIFAR-10 dataset.
- Accuracies achieved were **43.67%, 67.39%, 69.26%** Neural Networks, Convolutional Neural Networks, and Residual Neural Network Models respectively.

Digit Recognizer | Personal Project

- Built a Digit Recognizer to recognize handwritten digits, based on the concepts of Convolution Neural Networks.
- The Digit Recognizer was trained on the MNSIT dataset, and it was able to achieve an accuracy of **99.09%**.

POSITIONS OF RESPONSIBILITIES & EXTRA-CURRICULARS

- Manager, **TEDx IITROORKEE** (September 2019 – Present)
- Company Coordinator, **Training and Placement Office (TPO), IIT Roorkee** (January 2020 – August 2020)
- Core Team Member, **Cognizance – Technical Festival of IIT Roorkee** (November 2018 – January 2020)
- Volunteer, **NSS (3 UK CTR), IIT Roorkee** (September 2018 – Present)

| Website: https://007mathur.github.io/ | Email: umathur@ch.iitr.ac.in | Github: https://github.com/007mathur |