UTKARSH MATHUR

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EDUCATION

Indian Institute of Technology, Roorkee **July 2018 – July 2022**
B.Tech. Polymer Science and Engineering **CGPA – 6.16/10**
Courses: Design and Analysis of Algorithms, Artififcial Neural Networks, Mathematical Statistics, Computer Programming & Numerical Analysis
Societies & Activities: Team Inclusion (Member), Placement and Internship Cell (Company Associate), TED x IIT Roorkee (Manager), National Cadet Cell (Prahari Kaksh), Cognizance – Annual Technical Festival (Core Team Member), Music Section (Vocalist)

Central Board of Secondary Education (CBSE) **2015 - 2018**
Twelfth **Percentage – 87.6%**
Tenth **CGPA – 9.6/10**

KNOWLEDGE & SKILLS

Professional Courses: Deep Learning Specialisation (Coursera), Machine Learning A-Z (Udemy), Deep Learning A-Z (Udemy), Artificial Intelligence Nanodegree (Udacity), Sports Analytics Using Python (Mad About Sports), Data Science using Python (EICT IIT Roorkee)

Programming Languages: Python, R, Rust, C++, Java, Perl, SQL, MATLAB

Datasets Practiced - FER-2013, Melbourne Housing Snapshot, CIFAR-10, MNSIT– Handwritten digits, Titanic Dataset

ACHIEVEMENTS

- Secured All India Rank 6902 in JEE Advanced 2018 (out of more than 150,000 students) post selection from JEE Mains 2018 by securing All India Rank 9040 (out of more than 1,200,000 students).
- Secured 10th Rank in Rajasthan State Talent Search Examination 2015.
- LinkedIn Skill Badge – Python (Programming Language), C++

EXPERIENCE

ML Engineering Intern | HONO **July 2021 – April 2022**

- Working on building Predictive Analysis models of several kinds of HR-related datasets.
- Main responsibility is to create automated ML pipelines in Python after performing data preprocessing and analysis.

Data Science Intern | Imago AI **April 2021 – May 2021**

- Worked on implementation of ML algorithms on Hyperspectral Image data to produce optimum ML models which was the basic building block for some of the most used products of the organization.
- Used Python and its libraries to implement various classification and regression ML algorithms.

PROJECTS

Feature Selection with GWO | Research Project (IIT Roorkee)

- Ongoing project in collaboration with Ms. Preeti, PhD student of Dr. Kusum Deep, Professor, Department of Mathematics, IIT Roorkee.
- The main aim of this project is to optimize feature selection with application of Grey Wolf Optimization (GWO).

Semantic Segmentations of Ocular Images | Research Project (IIT Roorkee)

- Completed a project under Dr. Mayank Goswami, Assistant Professor, Department of Physics, IIT Roorkee.
- The aim was to perform semantic segmentation over tumor-infected ocular images of rats.

Breast Cancer Classification | Course Project (IEE 03 Artificial Neural Networks)

- The main objective is to compare these three models - Support Vector Machine (SVM), Neural Network (with Particle Swarm Optimizer), and Neural Network (with Gradient Descent) over Breast Cancer Classification.
- The conclusion was SVM models perform a better classification task than Neural Networks models when the number of training examples is small (in this case only 512).

Production of Sustainable Aviation Fuel | B.Tech. Project (IIT, Roorkee)

- It is project assigned to a group of 5 students under the aegis of Dr. PK Jha, Associate Professor, Chemical Department, IIT Roorkee.
- The aim of the project is to design a production plant that optimizes the production of Sustainable Aviation Fuel in India.

Motion of Liquid Droplet on Inclined Super-hydrophobic Surfaces | Research Project (IIT Roorkee)

- Completed a project under Dr. Gaurav Manik, Associate Professor, Department of Polymer and Packaging, IIT Roorkee.
- Scripted a library extension for Forcite module of Material Studio to calculate the contact angle and motion of a liquid droplet on an inclined surface coated with super-hydrophobic polymers.