MANOJ KUMAR SARAN

Roll Number: 112118034
B.Tech – Metallurgical and Materials Engineering
National Institute of Technology
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Educational Qualification:

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2018-Present	B.Tech – MME (Minor – CSE)	NIT, Trichy	8.69
2017	Class XII	JNV SardarShahar, CBSE	93.2%
2015	Class X	JNV SardarShahar, CBSE	9.6%

Academic Achievements:

- 2 years math team captain.
- 2 medals in Science Olympiad.
- Recipient of **INSPIRE Scholarship**, given to the top 1% students of the school.
- Recipient of **Samsung Star Scholarship** by **Samsung India**, given to the top 150 students from all over India.

Internship Experience:

- **Data Scientist Intern-Climate Connect Technologies**: *Dec'2020 - Mar'2021*
  - Utilized python to implement supervised machine learning techniques for time series load forecasting on previous 10 years of data, which reduced total MAPE to 0.76.
  - The project involves a machine learning model to predict load based on previous load and forecasted weather conditions.
  - Played Data Scientist role in the project using **Neural Nets** and **boosting algorithms**.
  - Presented results to the team's head and wrote requested executive summary detailing value proposition and strategy to present to end clients and senior leadership.

Project Work

- **Human Emotion and Gesture Detector Using Deep Learning/GitHub:** Dec'*2020 – Jan'2021*
  - The emotions model will be built using convolution neural networks from scratch and for finger gestures, I used transfer learning with VGG-16 architecture and adding custom layers to improve the performance of the model to get better and higher accuracy.
  - Achieved a validation accuracy of 50% for emotions model-1, over 65% for emotions model-2, and a validation accuracy of over 90% for the gestures model.

- **Big Mart Sales Prediction Hackathon/GitHub:** May'*2020 – June'2020*
  - The aim of this project is to build a predictive model and predict the sales of each product at a particular outlet.
  - Secured 22nd rank among 700 participants.The ML algorithm that performed the best was XGBoost with RMSE = 1041 which got me in the first 25%.

Technical Skills

- **Programming Languages**: C++, Python, SQL
- **Big Data & Machine Learning:** Spark, Hadoop, MongoDB, Python (eg. scikit-learn, numpy, pandas)
- **Data Science & Miscellaneous Technologies:** A/B testing, ETL, Data science pipeline (cleansing, wrangling,visualization, modeling, interpretation), Statistics, Time series, Experimental design, Hypothesis testing, OOP, OOD, APIs, Excel,Git

Courses

- **Core courses:**
  Linear Algebra and Differential Equations, Calculus, Basics of programming, Data Structures and Algorithms, DBMS, Operating System, Big Data Analytics
- **Self-learnt**:
  Machine Learning (Coursera), Python Bootcamp (Udemy)

Positions of Responsibility:

- **Organizer, Events Team, Pragyan:** *July 2019 – April'20*
  Pragyan, the international techno-managerial organization of NIT Trichy. The Events team brings to Pragyan a wide range of thought-provoking events. The members utilize forward-thinking abilities in a bid to make the proceedings at Pragyan inspiring and insightful for attendees.
- **Coordinator, Public Relations and Hospitality Team, Festember**: *July 2019 – April'20*
  Festember, the annual cultural fest of NIT Trichy & worked as a coordinator in Public Relations and Hospitality Team. As a part of the **Guest House** team the work specifically involved in the arrangement of various requirements for guests.

Extracurricular Activities:

Other Projects:

- **Built an end to end movie recommendation system/GitHub** Live demo
  A software that recommends ten similar movies to the Hollywood movie you like.

Social Activities:

- Currently volunteer and **Team leader** at **U&I** NIT Trichy**.**
- Volunteered as a member of the Management team in the **Aaveg** at NIT Trichy

Sports Activities:

- 2 years **Basketball** club **President**
- NIT Trichy **Volleyball** team player.
- Awarded **'A-certificate'** of **N.C.C.** (National Cadet Corps)