Akshit Srivastava

Education

- **Indian Institute of Technology, Bombay** — CPI: 7.87/10
  B Tech., Metallurgical Engineering & Material Science — *2018 – 22*
- **Modern Vidya Niketan, Faridabad** — 91%
  Intermediate/+2 — *2017*

Projects

- **Investigation of Rare Earth free Permanent Magnet systems** — IIT Bombay
  Prof. N. Venkatramani — *Sep'19 - Present*
  - Few metallic systems have been under consideration to replace rare earth base permanent magnet systems. The permanent magnets have an indispensible role to play in efficient motors of various capabilities.
  - Completed a Rigorous Literature study on magnetism in alloy systems which included reading 30+ research papers.
  - Making the alloy systems thus studied and experimenting with them for application in electric motors.
- **Analysis of Thermo Couples [Report]** — IIT Bombay
  Course Project - Prof. Parag Bhargav — *Mar'19*
  - Successfully built a functioning thermocouple with the constraint of using only easily available materials.
  - Measured the **Voltage** generated as a result of application of heat to the thermocouple.
  - Investigated the relationship between the performance of the thermocouple and material used, by repeating the experiment with a multitude of different materials and in the process of doing so, improved the model each time.
- **Machine Learning (Reading Project)[Report]** — IIT Bombay
  Summer of Science - Maths n Physics Club — *May'19 - July'19*
  - Completed **Deep Learning Specialization** from Coursera. It is a set of 5 courses aimed to give an introduction to CNNs,RNNs and LSTMs and other implementations of Neural Networks in general.[Certificate]
  - Implemented regression, classification, clustering and data retrieval algorithms along with various neural networks on datasets involving real estate, sentiment analysis, Speech recognition and animal recognition.
  - Attempted the famous **Titanic Challenge** on Kaggle, which involved primitive data cleaning and regression.[Code]
  - Attempted the **MNIST Digit Recogniser** challenge on Kaggle which required training a CNN on **MNIST** digits dataset and recognizing hand-written digits. Completed the task with 99% accuracy. [Code]
- **LED Pattern Display** — IIT Bombay
  Course Project - Prof. M.B. Patil — *Sept'19*
  - Conceptualized and built a circuit to display any given pattern on an 8 x 8 led matrix.
  - Utilized LM555 IC to construct timer giving input to counter circuit designed using J-K flip-flops.

Relevant Courses

- **Material Science:** Materials & Technology, Thermodynamics*, Structure of Materials*, Data Analysis*,
- **Mathematics:** Calculus, Linear Algebra, Differential Equations
- **Others:** Quantum Physics, Economics*, Algorithms & Complexity*, Introduction to Electrical & Electronics

*Tentative Course for Autumn'19