



# Aviral Tripathi

Roll No.:M22MA012

MTech

Data and Computational Science

Indian Institute of Technology, Jodhpur

+91-8299275325

vrltrph@gmail.com

m22ma012@iitj.ac.in

Github | AviralTripathim22ma012

Linkedin | aviral-tripathi-215ab61bb

## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech. (DCS)	Indian Institute of Technology, Jodhpur (IIT J)	7.19 (Current)	2022-Present
B.Tech. (EE)	National Institute of Technology, Hamirpur (NIT H)	8.56	2018-2022
12th	Central Board of Secondary Education (CBSE)	82.50%	2016-2017
10th	Central Board of Secondary Education (CBSE)	10 CGPA	2014-2015

## THESIS WORK

- LDP-Net** Feb. 2023 - present  
Supervisor: Dr. Pratik Mazumder  
Dept. of CSE, IIT Jodhpur  
– Thesis project on Few-Shot Learning utilizing LDP-Net, advancing AI capabilities in limited data scenarios. Enhanced problem-solving skills.

## PROJECTS

- Peer to Peer Architecture implementation (P2P)** Aug. 2023 - Sep. 2023  
Software and data Engineering course assignment  
– P2P network: Decentralized, direct sharing of resources, data, and services among peers without a central server.  
– Utilised SCP (Secure copy protocol) for safe data exchange over VMs on AWS.  
– used python Sockets enable direct communication between peers in a P2P network.
- Container Deployment On GCP** Sep. 2023  
Software and data Engineering course assignment  
– Docker: Platform for creating and running lightweight, isolated software containers.  
– Created VM on GCP and performed containerization using docker, deployed using Google Kubernetes Engine (GKE)
- Bloom filters** Jun. 2023 - Jul. 2023  
Algorithms for big data course assignment  
– A Bloom filter is a space-efficient probabilistic data structure used for fast membership tests by hashing and bit arrays.  
– Performed the following tasks: designed 5 different universal hash functions, keyword extraction, measured false positive rate
- Map-Reduce Implementation** Jun. 2023 - Jul. 2023  
Algorithms for big data course assignment  
– MapReduce: Distributed programming model for processing and generating large datasets.  
– Develop MapReduce algorithm for web log analysis tasks efficiently.  
– Tasks included IP count, top IPs, URLs, and status codes, with the use of Use CSV dataset to extract insights from weblogs effectively.

## KEY COURSES TAKEN

- Software and Data Engineering (SDE), Algorithms for Big data (ABD), Data Structures and Algorithms (DSA), Artificial Intelligence (AI), Machine Learning (ML), Deep Learning (DL), Statistics for Data Science, Financial Engineering, Ethical Issues with AI

## TECHNICAL SKILLS

- Programming Skills:** C++ (for DSA), Python (for Deep Learning)
- Tools & OS:** GitHub, AWS, GCP, GKE, Linux CMD, High Performance Computers (HPC) DGX-2, Kubernetes, Chat GPT
- Libraries/Frameworks:** Pandas, Numpy, scikit-learn, OpenCV, PyTorch, Matplotlib, Seaborn
- Web Skills:** Docker and Containerization, AWS, GCP, Node.JS

## ACHIEVEMENTS

- GATE RANK** Secured a rank of 3375, in GATE (EE), 2021, conducted by IIT Bombay 2021
- GAP YEAR** 2017-2018 for the preparation of JEE exams 2017-2018

## CERTIFICATIONS

- Udemy certification on Prompt Engineering for Chat GPT