JITESH HEMJI

Fourth Year Undergraduate
Department of Mechanical Engineering
Indian Institute of Technology Kanpur

jithemji@iitk.ac.in ✉
https://Jitesh Hemji-jithemji.github.io ⌂
github.com/jithemji ⚙ | jitesh-hemji in
+91-7062355340 ☎

EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution	CGPA/%
2019 - 2023	B.Tech, Mechanical Engineering	Indian Institute of Technology Kanpur	7.4/10.0
2018	BHSIEUP – XII	D.A.V Narang Inter College, Maharajganj	88%
2016	CBSE – X	Udaya Public School, Gorakhpur	10.0/10.0

WORK EXPERIENCE

Truminds System Softwares
Gurgaon, India
Software Development Intern — May'22 - July'22

- Worked with Vigilands AI Engine team, which enables external client to have **security surveillance system**
- Used **Apache Kafka** & **Zookeeper** to create a real time data pipeline for producer and consumer system
- Optimized the **reference masking** that would remove the noise, thereby reducing error of unintended detection
- Implemented **YOLOv3** based on **Darknet-53** for object detection and achieved a confidence score of **0.91**

Urvija AI
Bangalore, India
Data Monetization Intern — May'21-Aug'21

- Researched and devised a roadmap for **Personalized Customer Campaign** in **Retail Sector**, integrated it with a recommendation system for e-commerce platforms
- Built and trained the model using **Logistic Regression** and KMeans clustering to create chunks of customers
- Designed an efficient **North Star Metrics(NSM)** and **Key Performance Index(KPIs)** for the product
- Summarized the execution of the project by creating **Business** and **Product required documents**

INSTITUTE POSITIONS

Assistant Placement Coordinator
Feb'21-Mar'22
Students' Placement Office, IITK

- Worked in a **4-tier** team of **150+** members and **lead** a team of over **75+ CoCos** to conduct tests and interviews for **1300+** and **800+** students
- Recorded highest number of offers made till date with **380+** offers rolled out on Day 1 of Placement Drive 2021-22, achieved all time highest placement record
- Firms like **Jane Street**, **Optiver**, **Hotstar** hired for the first time during the campus internship drive 2021-22

Company Coordinator
July'20-Jan'21
Students' Placement Office, IITK

- Coordinated with Students' Placement Team for entire Internship drive and Placement Season FY2020-21
- Responsible for conduction of tests, GDs, and interviews
- Acted as a direct **PoC** for around **15+ companies** and **120+** students during placement drive 2020-21

HONOURS & AWARDS

- 2022 Awarded with **Certificate of appreciation** for immense work at Students' Placement Office, IIT Kanpur
- 2021 Shortlisted for **Education Outreach Scholarship**
- 2018 Awarded **INSPIRE** Scholarship by UPSMP for being in **top 1%** in boards

RELEVANT COURSES

Data Structures & Algorithms	Fundamentals of Computing
Introduction to statistics*	Data Analytics
Machine Learning*	Applied Numerical Methods
Project Management	Scientific Data Analytics
Vibration and Controls	Theory of Machines
Partial Differential Equation	Complex Variables * online

PROJECTS

Vallabhya: The Popularity Predictor
Aug'21-July'22
Research Project under Prof. Faiz Hamid — [Paper]

- Aimed to predict the popularity ratio of YouTube videos by analyzing the relevant **audio-visual** features
- Scraped **900+** videos from multiple **channels** to keep the equitability and extracted **42** distinct numeric attributes
- Experimented with classification of quality parameters using **RFE** and applied **SHAP** plot for features importance
- Achieved accuracy of **90.7%** for like is to view ratio with an F1 score and recall of 0.916 and 0.919 respectively
- Manuscript for the Research Paper under preparation **Target Journal:** European Journal of Information System

Rubik's Cube Solver
May'20-July'20
Speed Cubing Club (SnT Council, IITK)

- Worked in team of 4 and designed the Rubik's Cube Solver integrated with a virtual simulator for the end-user
- Implemented the **Fridrich(CFOP)** method to solve the cube
- Incorporated **advance moves** alongwith **F2L Algorithms** for **41** different variations to solve the corner-edges cubies
- Obtained solutions reaching an average of **55-65** moves

Implementation of Support Vector Machine
Apr'22-May'22
Course Project Prof. Suparno Mukhopadhyay — [Report]

- Detailed learning of **Support Vector Machine** algorithm, investigated kernel tricks & used **Lagrangian multiplier** to get the **optimal hyperplane** for non-perfect separable data
- Used linear, polynomial, radial basis function (RBF) kernels for making decision boundaries
- Implemented **SVC Class** and obtained similar results from sklearn's module *svm* and SVC class with **85%** accuracy

Markowitz Portfolio Optimization
Aug'21-Oct'21
Coursera Project Network

- Used **Modern Portfolio Theory** to analyze risk & return of different stocks, their relation with each other & the market
- Eliminated the specific risk to obtain the optimal weights for maximum **Sharpe ratio** and minimum variance portfolio, thereby maximizing the **risk adjusted return**
- Analyze the individual portfolio using **Efficient Frontier** by considering the individual investor's risk tolerance

SKILLS

Programming Languages: C, C++, Python, SQL
Libraries: NumPy, Pandas, NLTK, Matplotlib, TensorFlow
Tools: AutoCAD, Fusion 360, Matlab, Adams, MicroCap
Utilities: Git, Gitbash, Kafka, Linux, LaTeX, Excel, VS Code

MISCELLANEOUS

- Mentored **8** sophomores as Internship mentor FY2022
- Build a **Tic-Tac-Toe** using MiniMax Algorithm
- Attended **AI-for-India 1.0** event held by **GUVI**
- Participated in Hacktoberfest with a total of **5** commits
- **1st position** in street play(Antaragni'19)
- **2nd position** in mime(Antaragni'19)
- **2nd position** in Fresher's Film club workshop
- **NCC certificate holder**, participated in various parade