

# Niraj Kumar

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## EDUCATION

### M.Tech in Computer Science

INDIAN STATISTICAL INSTITUTE

Kolkata, India | 2020-22

### B.Tech in Computer Science and Engineering

GOVIND BALLABH PANT ENGINEERING COLLEGE

Pauri, Uttarakhand | 2015-19

## WORK EXPERIENCE

### Data Scientist

Gurgaon, Haryana | Since May 2024

@ACCERTIFY(SPLIT FROM AMERICAN EXPRESS IN 2024)

- Worked on a new kind of product called **Auto-Review** model which led to annual savings of \$250K per client and significantly reduced the operational costs
- Introduced a new set of features (**linkage and past-lookup**) further enhancing the model performance
- Skills: **Python, Pyspark, SQL, Feature Engineering, Case-Studies, Machine Learning Algorithms, Strategy Designing**

### Data Scientist

Gurgaon, Haryana | Aug 2022 - Apr 2024

@AMERICAN EXPRESS(ACCERTIFY)

- As part of **Accertify**, designed **Fraud Detection Models** for a variety of Industries like Money Transfer, Retail, Travel etc.
- Designed Strategy Rules over and above the base models to enhance the model performance and capture seasonal fraud trends.
- Was Awarded **Analyst of the Quarter** for Q1 2023 for delivering a fraud detection model for Money-Transfer Industry
- Skills: **Python, Pyspark, SQL, Feature Engineering, Case-Studies, Machine Learning Algorithms, Strategy Designing**

## PROJECTS

### DETECTING ANOMALIES IN SURVEILLANCE VIDEOS

TENSORFLOW, DEEP NEURAL NETWORKS, 3D CNNs

- Utilising Encoder-Decoder based **reconstruction and prediction techniques**
- Utilisation of different **Deep Neural Networks**
- Real-time applicable solution @30FPS

### OPEN-SOURCE BASED CUSTOM LLM

LANGCHAIN, LLMs, PINECONE

- Used different open source LLMs to train on custom dataset using **Retrieval Augmented Generation(RAG)**
- Model answers the user queries based on a given proprietary document provided by the user
- **Model Evaluation using Giskard**
- End to End model development and deployment on the cloud

## SKILLS

Languages: C, Python, Java, Bash, SQL

Domains: Algorithm Designing, Classical Machine Learning, Deep Learning, Image Processing and Computer Vision, NLP, LLMs

Tools and Frameworks: Pandas, MATLAB, Git, Pytorch, Tensorflow,  $\text{\LaTeX}$ , Pyspark, Langchain, Streamlit, Fast API, MongoDB, AWS

## PERSONAL INTERESTS

Testing different investing strategies, Mathematics, Learning about different cultures around the globe(By maintaining my Duolingo streak), Hiking.