

GURPREET KAUR

Microsoft Azure Certified DS | IBM Cert. | Aspiring Data Scientist | IIIT-B | Former AA: IIM-A | Former Analyst Intern: Central Govt. Of India | AI Researcher | Machine Learning | Artificial Intelligence (AI) | NLP | LLM | LLMops | MLOps | Deep Learning | Computer Vision | Data Science | Big Data | SQL | Statistics | AWS | Academic Scholar

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SUMMARY

I would like to work as strong key player in challenging & creative environments to harmonize the twin objectives of learning and delivering results consistently and get recognized as a valuable asset for the organization.

- In my **3+ Overall Diverse Professional Experience** in different roles **not in specialized Data domain**, I've worked & dealt with **Data Analytics, Financial Analytics, Security Analytics, Statistical Analysis, Data Visualization, Data Mining, Problem Solving, Decision-Making & Planning, Software Development-Quality Assurance, Information Technology, Information Security, Consulting, Data Security, Research & Development**. Adept at Performing Deep dive to Gain Actionable Insights with good Data Analytical Skills, proficient Decision-making capabilities & Problem-solving skills!
- **Successfully Implemented End-to-End Industry Projects & Accomplished Results** Tackling Real Industry & Business issues!

KEY SKILLS

- **Artificial Intelligence, Data Science, Machine Learning, Data Analysis, MLOps, LLMs, LLMops, Data Mining, Data Processing, Deep learning, Analytical Skills, Python, Data Visualization: Tableau, Data Analytics, Data Modeling, Computer Vision, SQL, Python, Keras, TensorFlow, Predictive Modelling, algorithms, statistics, Natural Language Processing, Text Analytics, Neural Networks, CNN, RNN, LSTM, Risk Analysis, Optimization Techniques, Hypothesis Testing, Feature Engineering, Azure, AWS, Statistical Data Analysis, Debugging, Deployment, Large Language Models, Generative AI.**
- **Programming:** Python, R
- **Databases:** MySQL, Oracle, Ms Access, Ms SQL server, PostgreSQL, Redshift, Database Query Languages: SQL, MongoDB
- **Cloud Platforms:** AWS, Azure, Aws Cloud Sage Maker Services, Azure Machine learning Services
- **Libraries:** OpenCV, Pandas, Scikit-Learn, Numpy, NLTK, Spacy, Scipy, Sklearn, Keras, Matplotlib, Pyserial, Tensorflow, Pytorch
- **Tools and Protocols:** Jupiter Notebook, Spyder, Microsoft Visual Studio, PyCharm, Pyspark
- **Data Visualisation/Analytics:** Tableau, Seaborn, Ggplot, Matplotlib, Plotly, Alteryx, MicrosoftFabric, Google Analytics, Microsoft Power BI, IBM Watson Analytics, QlikView, Excel.
- **Data Wrangling and Preprocessing:** Data Cleaning, Feature Engineering, Dimensionality Reduction, Scikit-learn, Pandas, Feature Tools.
- **Machine Learning:** Supervised- Unsupervised Learning, Linear & Logistic Regression, Random Forest, Clustering, Feature Engineering, Bagging & Boosting, Boosted Decision Trees, Naive Bayes, SVM, SVD/PCA, Anomaly Detection, NLP, BERT, Transformers, Deep Learning algorithms, Time Series Analysis, Sequence to Sequence learning.
- **Statistical Analysis:** Statistical Inference, Hypothesis Testing, Regression Analysis, Statistical Models, ANOVA, Bayesian Methods, Z-test, T-Test, F-Test, Chi-Square Test.
- **Deep Learning:** Keras PyTorch TensorFlow, Explainable AI, Generative AI, Neural Networks, NN, RNN, LSTM, GRU, CNN, Back Propagation, Gesture Recognition, Transfer Learning, Optimization of Algorithm, Regularization, Hyperparameter Tuning, Batch Normalization, Object Detection Algorithm Semantic Segmentation Algorithms, Generative Adversarial Networks, Instance Segmentation, Vision Transformer, Autoencoder, Capsule Net, RBF, Deep Belief Network, Variance Auto Encoder, Wavelet CNN
- **Natural Language Processing (NLP):**
Tokenization, Stemming and Lemmatization, Part-of-Speech (POS) Tagging, Named Entity Recognition (NER), Sentiment Analysis, Topic Modeling, Text Classification, Word Embeddings, Seq2Seq Models, Attention Mechanisms and Transformers, Language Modeling.
Deep Learning Models for NLP: BERT, Open AI GPT, T5, RoBERTa, XLNet, etc.
- **Gen AI LLM Model's:** Google Gemini, Vicina, LLAMA2, BloomModel, CodeT5+,MPT, OpenLLaMA, GPT-4, FastChat-T5, PALM, UL2, Cerebras-GPT,Open Assistant, Pythia, Dolly, SantaCoder, StarCoder, StableLM-Alpha, h2oGPT, Codegen, AlpacaGPT4, Flamingo, RedPajama-INCITE etc
- **Frameworks:** NLTK, Spacy, Gensim, Hugging Face's Transformers, torchtext, Stanford CoreNLP, Langchain, LlamaIndex
- **Prompt Engineering, LLM's, LLMops with MLflow**
- **Statistics:** Descriptive Statistics, Inference Statistics, Bayesian Inference
- **MLOps Tools and Platforms:** MLFlow, Kubeflow, Airflow, DataRobot, TFX (TensorFlow Extended), Seldon
- **Data Version Control Tools:** DVC (Data Version Control), Git
- **Containerization and Orchestration Tools:** Docker, Kubernetes

- **Continuous Integration and Continuous Deployment (CI/CD):** Jenkins, GitLab CI, Travis CI, CircleCI
- **Infrastructure as Code (IAC) Tools:** Terraform, Ansible, Chef, Puppet
- **Version Control and Collaboration:** Git, GitHub, GitLab, Branching, Merging, Code Reviews.
- **Business Domain Expertise:** Enterprise Data Analytics, Sales-Marketing Product Analytics, Customer Segmentation
- **Soft Skills:** Time Management, Multitasking, Strategic, Passionate, Innovative, Storytelling, Critical Thinking, Excellent Leadership & Management Quality, Excellent Communication Skills, Quick Adaptability To Challenging Situations, Ability to understand and learn new technologies quickly. Strong Adherence To Deadlines & Schedules.
- **Model Deployment Tools:** Docker, Kubeflow, MLOps, MLflow, TensorFlow-Serving, ZenML, Kedro, Deployment with Streamlit, Heroku, Render (Git), Github Actions , CircleCI, Prefect, AWS EC2, REST API ,Flask , FastAPI

WORK EXPERIENCE

DATA ANALYST Public Works Department (Intern)	Nov 2020 - Apr 2021 New Delhi, India
DATA ANALYST Income Tax Department (Intern)	Oct 2018 - Mar 2019 Rajasthan, India
DATA ANALYST Central Public Works Department (Intern) (Govt. of India)	July 2017 - Dec 2017 Rajkot, Gujarat, India

Role & Responsibilities (Govt. Dept. - Data Analyst Intern)

- Data Analysis: Formulation, Analysis & Budgeting of Detailed Estimates & Rates description
- Financial Analysis: Estimation & Valuation of Building Reports with 95% Accuracy
- Preparation of NIT's (Notice Inviting Tenders Documents) & Composing Deviation Statement's.
- Software Maintenance & Quality Assurance.
- Develop and Implement strategies to achieve organizational goals
- Evaluating and formulating enhancement strategies to boost KPIs, etc.
- Decision-Making And Planning with Formulation & Analysis of Monthly Report Generation of Works.
- It was Freelance work whenever projects were allocated by Central Government Office: Internship Under Govt. Officer.
- **RoleSkills:** Data Analysis · Analytical Skills · Data Analytics · Statistical Data Analysis · Data Visualization · Data Mining · Problem Solving · Software Quality Assurance · Information Technology · Information Security · Data Security · Vulnerability Assessment · Security Audits ·Delivered Projects

Academic Associate Indian Institute of Management Ahmedabad (IIM-A Full Time)	Jun 2015 - Jul 2016 Ahmedabad, Gujarat, India
Lecturer Government Polytechnic College	Mar 2013 - Jul 2013 Jamnagar, Gujarat, India
Security Analyst Trainee Techdefence Pvt. Ltd. (Professional Research Experience -Internship)	June 2014 – Nov 2014 Ahmedabad, Gujarat, India
Role: Penetration Testing Of Web Applications. Developing Web Application Penetration Testing Framework.	

TECHNICAL AND PROFESSIONAL EXPERTISE

- Developed, Delivered Projects with deployment using Langchain & Generative AI with open source LLM Models.
- Gaining Expertise in **Machine and Deep Learning frameworks, Model Validation & Deployment tools, Data Pipeline Technologies, Data Analytics, Predictive Analytics, Visualization and Data Storytelling Tools.**
- Pursuing Specialization in **Machine Learning Engineering for Production (MLOps), NLP, AI, LLM, LLMOps, ML, DL, CV, GANs, Prompt Engineering, Generative AI, Explainable AI.**
- Developing a **real-world ML/AI solution** using **AI pair programming and GitHub Copilot.**
- Working on building solutions using **Large Language Models** and **Generative AI** capabilities.
- **Machine Learning Engineering** - Design, build, and deploy ML models and systems to **solve real-world problems.**
- **Involved in developing ML/DL models** for clustering, classification, regression & forecasting applications.
- **Data Science** - Analyze and interpret complex data sets, develop ML models, **implement data management**, and drive **data-driven decision making.** Automate **data preprocessing** and **feature extraction for ML models.**
- Understanding of **Statistical Machine Learning Models** with Python.
- Automate and develop **Scalable Systems** using **cutting-edge technologies.**
- Experience working on engagements for data science, conceptualisation of **use cases** and experience in **design, build, train and deploy ML components.**
- Implementing **GPU-accelerated ML tasks** using **Rust** for improved performance and efficiency.
- **Created CI/CD pipeline** for build, release, and configuration management. Experience using **RESTful APIs.**
- **Fine-tuning & deploying Large Language Models (LLMs),** containerized models (**#ONNX** format) with **Hugging Face.**

- Creating web applications/command-line tools for ML model interaction using **Gradio HuggingFace** & Clickframework.
- Gaining Expertise in **Object Oriented design and analysis**.
- Big Data Certifications on **Microsoft Azure** (Certification ID: [994603052](#))
- **Cloud ML Solutions Architect** - Leverage cloud platforms like **AWS and Azure** to architect and manage ML solutions in a scalable, cost-effective manner. Working to Possess strong skills in Hadoop and ETL operations using Hive.
- Applying ML to Big Data Using Hadoop and Spark Ecosystem. Deriving Business Insights and Storytelling.
- Experience using **SQL and good RDBMS** conceptual knowledge.
- Gaining Expertise in **Database development** with SQL Server along with **Data Modelling** and **Data Analysis** skills.
- Training, optimizing, and deploying ML models on **Amazon SageMaker and Azure ML for cloud-based MLOps**.
- Designing a **full MLOps pipeline with MLflow**, managing projects, models, and tracking system features.

PROJECTS

- **Generative AI LLM Projects:** AI Chatbot Using LLM Models & Langchain, ATS Using Google Gemini, Image-to-Speech-GenAI-tool, Multi-PDFs ChatApp AI-Agent, GenAI-LLM-RAG-bot, Medical Chatbot using Llama2, LLM Interview Research Assistant, Multi Language Invoice Extractor Using LLM, Speech-to-Image Generation using OpenAI Models, Resume ATS Tracker, RAG LLM App Using LlamaIndex and OpenAI, Nutritionist Generative AI Doctor Using Google Gemini Pro Vision, SOL LLM App, etc
- **Machine Learning Projects:** Sales Forecasting, Hot Leads Scoring Prediction, Online Payments Fraud/Spam Detection, Telecom Churn Analysis, Diamond Price Prediction, Fault detection in wafferes based on sensor data, Insurance fraud detection, Music Genre Classification Project with PCA and Logistic Regression, etc
- **Deep Learning/ Computer Vision:** MRI Style Transfer Using GAN, Face Mask Detection, Skin Cancer Melanoma Detection, Image Segmentation/Object Detection, Vision Based Attendance System, Shredder System, Industry Safety Detection using YOLO v7, Build an Image generator using Stable Diffusion, Gesture Recognition, Sign Language Generation from Video Using Yolo, Lung X-ray classification using CNN with BentoML, Kidney-Disease-Classification-MLflow-DVC, Face Swap Application Using OpenCV and Flask, Automatic_Number_Plate_Recognition_YOLO_OCR, Speed Estimation & Vehicle Tracking Using YOLO V8, etc
- **NLP Projects:** Sentiment Analysis based Product Recommender system, Machine Translation System, Automatic Text summarization, News Recommender System, Movie Review using BERT, Name Entity Recognition with Bert, Google Dialogflow Chatbot, Question answering System with AWS Lambda service, etc

CERTIFICATIONS

- Microsoft Certified: Azure Data Scientist Associate
- Deep Learning Specialization (IIIT-B)
- Machine Learning Specialization (IIIT-B)
- IBM AI Engineering Professional Certificate (Pursuing)
- Machine Learning Engineering for Production (MLOps) Specialization (DeepLearning.AI) (Pursuing)
- Natural Language Processing Specialization (DeepLearning.AI) (Pursuing)

EDUCATION

Executive-PGP (Artificial Intelligence, Machine Learning, DL) IIIT-Bangalore CGPA 3.76 / 4	2022- 2023
<i>A comprehensive 12-month program taught by Industry experts and IIITB faculty; 15 case studies & projects; 400+ hours of academic learning & 30+ hours of industry mentoring</i>	
M.TECH (CSE-Information & Network Security Spec.) CPI: 8.31/10 ; Percentage: 78.1	2013- 2015
Nirma University (Institute Of Technology)	Ahmedabad, Gujarat, India
B.TECH (C.S.E.: Computer Science And Engineering) Percentage: 81.25	2008- 2012
Rajasthan Technical University: R.T.U-B.S.E.T	Jaipur, Rajasthan, India

AWARDS & ACHIEVEMENTS

- Excelled & Won "Top Performer Winning Award" for Being Consistent Topper in **Data Science Batch (Artificial Intelligence, Deep Learning, Computer Vision, Machine Learning Spec.)** from IIIT-B & Upgrad.
- Won Hackathon On Kaggle (Bajaj Allianz Insurance Policy Prediction)
Link: <https://www.kaggle.com/competitions/allianz-hackathon/leaderboard>
- Got "Academic Excellence Award's for being at **POSITION-1** in CS/IT(All 4Yrs), By Director and Principal of Institute.