

ARIHANT SHUKLA

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EDUCATION

Degree	Institute	Year	CGPA (ACGPA) / %
Integrated M.Sc in Exploration Geophysics	IIT Kharagpur	2020 - 2025	8.75 / 10
Indian School Certificate	M.C.Kejriwal Vidyapeeth	2018 - 2020	93.8 %
Indian Certificate of Secondary Education	Methodist School	2008 - 2018	92.5%

INTERNSHIPS

AI/ML Internship | Webnyay 📌

May 2023 - June 2023

- Co-developed a legal document **chatbot** with React, Django, and advanced features, showcasing expertise in NLP.
- Conducted in-depth research to optimize LLM development by leveraging **OpenAI** and **Hugging Face** frameworks.
- Achieved proficiency in NLP and **Langchain**, spanning frontend, backend, LLM model implementation and **fine tuning**.

Data Science and Business Analytics Internship | The Sparks Foundation 📌

May 2023

- Accomplished Iris classification (**unsupervised clustering**) and precise student mark prediction (**supervised ML**).
- Integrated **sentiment analysis** of TOI news headlines with BSE-Sensex data, enhancing stock price prediction precision.

SELF PROJECTS

Improving Financial Security: Data-Driven Fraud Detection

- Conducted extensive **Exploratory Data Analysis**, preprocessing,utilised label encoders and applied feature selection.
- Leveraged **Isolation Forest** for supervised **anomaly detection**, significantly identifying fraud with an accuracy of **98.89%**
- Enhanced** Model Performance by Implementing the **XGBoost** algorithm, with an **accuracy** of **99.96%** and **F1 score** of **0.81**.

Sports Image Classification Using Transfer Learning with ResNet-50

- Proficiently employed **ResNet-50**, a powerful deep learning architecture, for transfer learning in image classifications.
- Conducted comprehensive performance evaluation,obtaining an **Accuracy** of **95.4%** on validation and **95.8%** on test set.
- Demonstrated **Deep learning** proficiency through meticulous **data preprocessing** for optimized model performance.

Heart Failure Detection and Analysis

- Developed high-accuracy **XGBRF**(93.33%), **KNN**(91.67%), and **Logistic Regression**(90%) for heart failure prediction.
- Conducted factor analysis to unveil intricate healthcare data relationships, enhancing insights via **data visualizations**.

COMPETITIONS

American Express Campus Super Bowl Challenge 2023 | Merchant Recommender System

- Created a merchant recommendation system with **uplift** algorithm and **XGBoost** , measuring incremental activation.
- Landed in the **top 1.8%** with a incremental activation score of 0.0002397 of the total participants at the end of Round 1.

JPMC Quant Challenge 2023 | Data Science and Machine Learning | Stock price predictions

- Developed **gradient boosting** algorithm with **feature extraction**, achieving **90% test accuracy** on 100 stocks prices
- Performed **Exploratory Data Analysis** , revealing financial insights and relationships for informed stock market decisions

EXL EQ 2023 Challenge | PM 2.5 predictions and EDA

- Predicted **PM2.5** concentrations in cities using **LSTM**, exploring correlations and predictors for moderate **R2** scores.
- Conducted spatial and temporal **PM2.5 EDA**, revealing PM2.5 variations and regional pollution levels across 34 cities

AWARDS & ACHIEVEMENTS

- Branch Rank 2** among Integrated M.Sc in Exploration Geophysics students of the 2020 batch of IIT Kharagpur.
- Joint Entrance Examinations:**Acquired a **top 6.28%** rank in JEE Advanced-2020 and **top 1.93%** rank in JEE Mains-2020.

COURSEWORK INFORMATION

University Credit Courses: Data Structures and Algorithms | Theory of PDE |Linear Algebra | Probability and Statistics | Transform Calculus |Advanced Calculus |Physics Of waves |Electrical Technology|Applied Computational Methods|Science of Living Systems | Geophysical Signal Processing|Geophysical Inverse Theory |Economics|Small Business Development|Chemistry

MOOCs: Google Data Analytics Professional Certificate | Machine Learning Specialization | Deep Learning Specialization

SKILLS & EXPERTISE

Technical: Excel | PowerPoint | Word | Google Big Query | Tableau | R studio | VS Code | Google Colab| Jira | Figma | Canva

Languages/Frameworks: Java | Python | MATLAB | SQL | R | TensorFlow | Numpy | Pandas | Matplotlib | Scikit-Learn|OpenCV

POSITIONS OF RESPONSIBILITY

Events Head & Design Coordinator at Spring Fest, IIT Kharagpur

May 2022 - June 2023

- Led and revived a full-scale offline fest with a team of **46** core organizers and **55** associates, attracting **80k+ footfall**
- Strategically conducted Nation-wide Prelims and Eliminations in **17** cities,and led the execution of major fest events.
- Played a pivotal role in verification and releasing **200+** creatives on social media and creation of offline corp. deliverables.