# Mohd Hasan Khan

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## Education

- **INSTITUTE OF MATHEMATICS & APPLICATIONS** — Bhubaneawar, India
  *Master of Mathematics with Data Science* — *Aug 2022 - May 2024*
  ***Courses:*** *NLP, Machine Learning, Deep Learning, Databases, Artificial Intelligence, Analysis, Linear Algebra, Statistics & Probability.*
- **VEER BAHADUR SINGH PURVANCHAL UNIVERSITY** — Jaunpur, India
  *Bachelor of Mathematics* — *Jul 2018 - Aug 2021*
  ***Courses:*** *Introduction to Probability ,Real Analysis, Linear Algebra, Introduction to Statistics, Discrete Mathematics, Abstract Algebra, Economics, , Design and Analysis of Algorithms.*

## Skills Summary

- **Languages**: Python, C++, SQL, JAVA
- **Frameworks**: Pandas, Numpy, Matplotlib, Seaborn, Scikit, NLTK, SpaCy, TensorFlow, Keras, Flask
- **Tools**: Tableau, Power BI, Advance Excel, GIT, MySQL
- **Soft Skills**: Leadership, Event Management, Writing, Public Speaking, Time Management

## Experience

- **BEATS BY DRE** — Remote
  *Consumer Insights Data Analytics Extern (Full-time)* — *June 2024 - Jul 2024*
  - **Sentiment Analysis on Consumer Reviews**: Developed proficiency in Python and various data science libraries to perform comprehensive sentiment analysis on consumer reviews.
  - **Exploratory Data Analysis (EDA)**: Applied exploratory data analysis (EDA) techniques to uncover underlying patterns and trends in large datasets.
  - **Advanced Natural Language Processing**: Utilized Advanced Natural Language Processing tools, including Gemini AI, to interpret and summarize customer feedback.
  - **Data Visualization**: Developed proficiency in data visualization tools to present insights that may inform strategic brand building.
- **IIIT BHUBANESWAR** — On-site
  *Intern* — *Aug 2023 - Nov 2023*
  - **Fake News Detection Model**: Developed a Fake News Detection Model using Deep Learning.
  - **Data Preprocessing**: Used a Kaggle dataset with Real and Fake News articles, applying Python and NLP libraries for data preprocessing.
  - **Machine Learning Techniques**: Trained various machine learning techniques including Naive Bayes, Random Forest, and Neural Network.
  - **Accuracy Achievement**: Achieved an exceptional accuracy rate of 99% in classifying news articles as real or fake.

## Projects

- **Pneumonia Detection and Classification (Python, Deep Learning, CNN)**: Developed a CNN-based system for diagnosing pneumonia using chest X-ray images. Achieved high accuracy (92%) in pneumonia detection. Designed a simpler model (6 layers) that outperformed existing complex models. Utilized image augmentation to increase training data variations and improve model performance. (Jan 2024 - May 2024)
- **SQL: Data Cleaning on Swiggy Dataset (SQL)**: Prepared data by removing null values, splitting menu categories into main and subcategories, adding a review column based on ratings, and incorporating a budget-type column using cost for two data, facilitating final Exploratory Data Analysis (EDA). (Jan 2023 - Feb 2023)
- **Game of Thrones Dashboard using Tableau (Tableau, Excel)**: Developed a comprehensive Tableau dashboard for Game of Thrones. Collected data from Kaggle and cleaned it using Excel. Visualized episode details, total episodes, descriptions, and IMDb ratings for user exploration. (June 2024)
- **Demographics Analysis (Python)**: Explored the fundamentals of demographics analysis using Python. Covered essential topics such as population characterization based on age, gender, location, income, and education. Utilized Python libraries for data manipulation, visualization, and statistical analysis.

## Certifications

1. Python (Basic), HackerRank. — Link
2. SQL (Basic), HackerRank. — Link
3. Data Analysis with Python, IBM. — Link

## Volunteer Experience

**Volunteer**:At the International Conference on 'Mathematical Analysis & Applications' and 50th Annual Conference of Odisha Mathematical Society at Institute of Mathematics and Applications.