

# Monika Barsagade

## Associate Data Scientist

### Contact



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### Professional Profile

Dynamic Data Scientist with expertise in advanced analytics, machine learning, and data-driven solution development. Proven track record of extracting actionable insights from complex datasets. Proficient in Python, adept at communicating technical findings to non-technical audiences. Eager to drive innovation and enhance organizational performance through data science.

### Professional Experience

#### Associate Data Scientist | Log e IT Solutions Pvt. Ltd.

3.5 Years | January 2021 to Till Date

- A professional with experience in Python, Data Science, Machine learning and natural language processing with expertise in Financial and Healthcare domain projects.
- Able to investigate Data Visualization and summarization techniques conveying key findings.
- Communicates findings and obstacles to team members to achieve best approach.
- Ability to write a clean and production code with Object Oriented Programming in Python.
- Thorough understanding of Probability and Statistics.
- Experience in data management tools - Relational and SQL databases.
- Knowledge of Python's Data Analysis and ML Libraries.
- Source code management and Version Control system using Git and GitHub.

#### Machine Learning and Data Science:

- **Python Packages**- NumPy, Pandas, Sci-py, Scikit-learn, Seaborn, Matplotlib.
- **Machine learning**- Linear Regression, Ridge & Lasso Regression, Logistic Regression, Naïve Bayes Classifier, k Nearest Neighbour's Classifier, Support Vector Machine, Decision Tree, Random Forest, Gradient Descent, Ada-Boost, Gradient Boosting, XGBoost, K-means Clustering.
- **NLP**- NLTK, TF-IDF, Word2Vec, Bag of Words, Hugging Face, BERT.
- **Framework**- Flask.

### Education

**BE** | Electrical Engineering,  
2017, Nagpur University,  
CGPA 8.7

**Diploma** | Electrical  
Engineering, 2013, MSBTE,  
67.47

### Additional Skills

**Deep Learning:** Neural  
Networks, Deep Learning,  
ANN, CNN, Transfer Learning,  
Back Propagation, Linear  
Algebra, Activation & loss  
functions, optimisers,  
Tensorflow 2.x, Keras

**AWS:** Elastic Compute  
Cloud, Sagemaker,  
Notebook instance, AWS  
container, Simple Storage  
Services S3, Deployment,  
Multi cloud environment

Project Details

Project 1: Term Deposit Prediction

- Developed a machine learning model to predict whether a customer would subscribe to a term deposit based on historical data.
- Employed techniques such as logistic regression, decision trees, and random forests, adaboost to achieve an accuracy of 88%.
- Conducted data preprocessing, feature selection, and hyperparameter tuning to optimize model performance.
- Visualized data insights and model predictions using matplotlib and seaborn.

Project 2: Pediatric pneumonia detection using chest x-ray

- Created a convolutional neural network (CNN) model to classify pediatric pneumonia from chest X-ray images.
- Pre-processed images using techniques like resizing, normalization, and augmentation to improve model robustness.
- Achieved a classification accuracy of 92% on the validation set.
- Utilized TensorFlow and Keras for model development and training.

Project 3: Named Entity Recognition (NER) for Financial Documents

- Developed an NER model to extract entities such as company names, dates, earnings reports, financial news articles and monetary values from financial documents.
- Leveraged spaCy and custom NLP pipelines for entity recognition.
- Improved extraction accuracy through iterative training and evaluation.
- Visualized entity extraction results using streamlit for stakeholder presentations.

**NLP:** Text understanding, representation & classification techniques, Text clustering skills, transformer.

**Generative AI:** LLM, BERT, Transformer models

**Libraries:** nltk, spacy, gensim, textblob, langdetect, googletrans.

**Techstack:** BOW, TFIDF, word2vec, doc2vec, sent2vec, keyphrase extraction.

**Methodology:** Agile

**Project Tool:** JIRA

**Databases:** 3C (Command, Constrains, Clauses), CRUD operations, Subqueries, Window functions, Joins.

**Maths & Stats:** Filter, Wrapper, Embedded Method, P-Value, T-Test, Z-Test, ANNOVA test, Chi-Square Test, Info-Gain Test, Hypothesis Testing. probability, statistics, linear algebra, probability, statistics.

Personal Details

**DOB:** 11-06-1992

**Languages:** English, Hindi, Marathi

**Marital Status:** Unmarried

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