PRAVEEN KUMAR BHARTI

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CORE TECHNICAL SKILLS

- ***Programming Languages:*** Python
- ***Data Visualization and Analysis Tools:*** matplotlib, seaborn, PowerBI, Tableau, pandas, Numpy
- ***Machine Learning and Deep Learning:*** Statistical and EDA Analysis, Data Mining and Transformation, Predictive Modelling, ML Model Application, Deep Learning and Time Series Analysis, TensorFlow, PyTorch, Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Autoencoders, Transfer Learning, Dropout, Optimizers (e.g., Adam, RMSprop), Sequence Models, Attention Mechanisms, Transformers
- ***Natural Language Processing:*** NLP Applications, spaCy, NLTK, Gensim, Word Embeddings, Text Classification, Named Entity Recognition (NER), Sentiment Analysis, Language Models, Sequence-to-Sequence Models, BERT, GPT, Transformer-XL, BERT Variants (e.g., RoBERTa, DistilBERT)
- ***Database Management:*** SQL, MongoDB, MySQL

EXPERIENCE

Data Science Intern | Jan- 2023 - Oct-2023
Rubixe, Bangalore

- Collaborated on various data science projects, gaining hands-on experience in machine learning and NLP
- Analyzed data, developed predictive models, and provided actionable insights using Python, pandas, Numpy, and sklearn
- Created data visualization and dashboards using matplotlib, seaborn, PowerBI, and Tableau

Site Engineer | Feb 2022 - Dec 2022
M. K. Gupta Construction Co., Korba, Chhattisgarh

- ***Project Management:*** Led the construction of STP plants (3.0 & 1.5 MLD) in Chirmiri, overseeing labor, workflow, and procurement processes.
- ***Quality Assurance:*** Ensured adherence to quality standards, safety protocols, and compliance with project specifications through consistent site inspections.
- ***Reporting & Collaboration:*** Produced daily progress reports, identified and tackled challenges, and fostered effective communication with contractors and engineers.

PROJECTS

Employee Performance Rating Prediction

- ***Objective:*** Implement machine learning models to forecast employee turnover.
- ***Dataset:*** Analyzed INX Performance Report with metrics including age, gender, education, salary.
- ***Key Models & Results:***
  - ***Random Forest***: 94.48% accuracy, best model, ensemble decision trees.
  - ***SVM Classifier:*** 94.10% accuracy, supervised learning, optimal class separation.
  - ***XGBOOST:*** 94.67% accuracy, gradient boosting, strong predictive power.
  - ***Extra Tree Classifier:*** 72.95% accuracy, random splits, variant analysis.
  - ***ANN Model:*** 95% accuracy, ANN's superiority, complex relationships.
- ***Serialization & Deployment: Joblib & Pickle:*** Leveraged for model serialization, ensuring efficient model storage and accessibility for future predictions.
- **Conclusion**: Successfully developed high-accuracy models to predict attrition, with ANN outperforming others, indicating readiness for production deployment. Model serialization facilitated practical application in real-world settings.
- Deployment link : https://deploy-emp-performance.streamlit.app/
- Github link: https://github.com/praveenbharti1/INX_Employee_Performance

Mobile Phone Price Range Prediction: Data-Driven Strategy

- ***Objective:*** Leverage machine learning to forecast mobile phone price brackets, informing strategic business decisions.
- ***Data Scrutiny:*** Utilized statistical techniques for comprehensive data examination, ensuring data integrity and readiness for model application.
- ***Algorithm Deployment:*** Engaged multiple predictive models, including Logistic Regression and Random Forest, focusing on accuracy and error reduction.
- ***Model Refinement:*** Conducted hyperparameter adjustments to enhance model performance, achieving a notable 96% accuracy with Logistic Regression.
- ***Outcome:*** The project culminated in selecting a highly accurate Logistic Regression model, driving informed pricing and marketing strategies to sharpen competitive edge in the mobile phone sector.
- ***Relevance:*** This endeavor underscores the importance of data analytics in optimizing product positioning and maximizing market potential.
- Deployment link:- http://praveenbharti.pythonanywhere.com/,
- Github link:- https://github.com/praveenbharti1/mobile_price_pred

Automated Machine Learning App: Streamlining Data Science Workflow

- ***Key Features & Achievements:***
- ***Streamlit App Development:*** Created a user-friendly app for automated machine learning processes.
- ***Data Science Automation:*** Enabled dataset upload, data cleaning, preprocessing, visualization, and predictive modeling with accuracy metrics.
- ***Interactive Visualization***: Provided dynamic tools to evaluate model performance and data trends.
- ***Modular Python Coding:*** Implemented scalable, maintainable, and efficient codebase.
- ***User Experience Enhancement:*** Incorporated sample datasets, demonstrating app capabilities and offering seamless experience.
- ***Conclusion***: Developed an innovative, automated machine learning solution, enhancing user engagement and streamlining data science workflow.
- Deployment Link :- https://automachinelearning.streamlit.app/
- Github Link :- https://github.com/praveenbharti1/Auto_Machine_Learning_App

More project can be found in my Github page

EDUCATION

Masters in Environmental Engineering | Jul 2019 - Sep 2021
National Institute of Foundry and Forge Technology | GPA: 7.8/10

Bachelor's in Civil Engineering | Aug 2013 - Sep 2017
Gandhi Institute For Technology, Bhubaneswar | GPA: 6.67/10

CERTIFICATION

Data Science Foundation, IABAC
Certified Data Scientist, Nasscom
Certified Data Scientist, Datamites
Certification course in Data science (BCCDS01), JainX University

SOFT SKILL

Teamwork: Data science and engineering collaboration.
Analysis: Employee performance and mobile phone pricing data.
Management: Construction and data science project leadership.
Problem-Solving: Challenge resolution and model refinement.
Adaptability: Engineering to data science transition and learning.
Time Management: Academic and practical experience balance.