

Core Machine Learning Skills

1. **Machine Learning Algorithms**
 - Understanding of supervised and unsupervised algorithms (e.g., regression, classification, clustering)
 - Experience with decision trees, SVMs, k-means clustering, and neural networks
2. **Feature Engineering**
 - Identifying and creating relevant features
 - Dimensionality reduction techniques (e.g., PCA, LDA)
3. **Model Evaluation and Validation**
 - Knowledge of metrics like accuracy, precision, recall, F1 score, AUC-ROC
 - Experience with cross-validation, grid search, and random search
4. **Model Deployment and Monitoring**
 - Familiarity with deployment frameworks (e.g., Flask, FastAPI)
 - Monitoring deployed models in production environments

Technical Skills

1. **Machine Learning Frameworks and Libraries**
 - Proficiency in libraries like scikit-learn, TensorFlow, Keras, and PyTorch
2. **Data Visualization**
 - Using Matplotlib, Seaborn, and Plotly for data exploration and model performance visualization
3. **Natural Language Processing (NLP) (if applicable)**
 - Understanding of tokenization, stemming, and lemmatization
 - Familiarity with NLP libraries (e.g., NLTK, spaCy, Hugging Face Transformers)
4. **Big Data Tools and Frameworks (if applicable)**
 - Knowledge of Spark, Hadoop, or distributed computing for handling large datasets
5. **Version Control**
 - Familiarity with Git for tracking code changes

Advanced Skills

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