# **Om Pandey**

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#### **SKILLS:**

Core: Machine Learning, Deep Learning, Data Science, Model Deployment, Scripting, Automation

Languages: Python, Java, SQL

ML Libraries: Scikit-learn, Pandas, NumPy

Cloud & DevOps: AWS (EKS), GCP, Docker, Kubernetes, Terraform, Ansible

Databases: MySQL, PostgreSQL, MongoDB

Visualization Tools: Matplotlib, Seaborn, Plotly, Power BI, Tableau

#### WORK EXPERIENCE:

## Capgemini

## Professional - 1 Software Engineer

July 2023 - Present

Developed project's CI/CD pipeline using GitLab CI to automate package creation and enable code-scanning using sonar and trivy Migrated the on-premise Kubernetes environment to AWS Elastic Kubernetes Service, optimizing resource utilization and enhancing scalability by 40% and reducing security vulnerability incidents by 50%.

Deployed AI applications by converting diverse Docker service packages into a unified Docker Compose file, facilitating seamless integration into our platform.

#### Capgemini

### Associate - 2 Software Engineer

June 2022 - June 2023

Successfully migrated a complex Kubernetes environment from version 1.18 to a newer, supported version, ensuring uninterrupted service and optimized performance while reducing resource consumption by 33%.

Spearheaded a Proof of Concept (POC) to migrate on-premise, self-managed Kubernetes clusters to AWS, evaluating the feasibility and benefits of cloud adoption.

#### **EMA Solutions Pvt. Ltd.**

### **Machine Learning Engineer - Intern**

June 2021 - July 2022

Cleaned time-series data using Python scripts incorporating statistical analysis techniques such as outlier removal, handling missing values, and feature scaling.

Used ARIMA models to predict future power requirements for different states in India, improving forecasting accuracy by 20%.

## **EDUCATION:**

#### University of Petroleum and Energy Studies

B.Tech in Computer Science Engineering, Specialization in Artificial Intelligence and Machine Learning

June 2018 - May 2022

Relevant Coursework: Machine Learning, Deep Learning, Natural Language Processing, Data Mining, Big Data Analytics

#### **PERSONAL PROJECTS:**

## **Machine Learning using OOP Concepts**

Developed and implemented K-Means clustering and KNN classification algorithms in Python, applying mathematical principles. Employed object-oriented programming (OOP) paradigms, including encapsulation, polymorphism, and inheritance, to create a robust and maintainable codebase for effective data analysis and model deployment.

#### **Published Research Paper on Mushroom Classification**

Conducted a comprehensive comparative analysis of 14 Machine Learning algorithms, evaluating performance metrics such as accuracy, precision, and F1-score.

Presented research findings at the 12th International Conference on System Modeling and Advancement in Research Trends (SMART) 2023

IEEE Publication: https://ieeexplore.ieee.org/abstract/document/10428619

### **EDA and Survivor Predictions on the Titanic Dataset**

Cleaned the dataset by handling missing values using imputation techniques, encoding categorical variables, and scaling numerical features.

Conducted exploratory data analysis (EDA) using Seaborn and Matplotlib to identify survival correlations based on age, gender, fare, and class.

Built and compared classification models such as Logistic Regression, Random Forest, XGBoost, and Neural Networks to improve prediction accuracy.