

# Kumlesh Kumar

Junior Machine learning Engineer



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## EDUCATION

### Computer Science and Engineering (Data Science)

National Institute of Science and Technology  
(<https://www.nist.edu/>)

August 2024 – August 2028 | Berhampur

### XII (Science) – CBSE – 2022

St.Xavier's High School

April 2020 – May 2022 | Berhampur

## LANGUAGES

Odia

Hindi

English

## COURSES

### Applied Machine Learning in Python

University of Michigan

April 2024 – June 2024

- Supervised & unsupervised learning algorithms
- Model training, testing, and evaluation techniques
- Feature engineering & data preprocessing

## SKILLS

### Programming & Core

- Python (NumPy, Pandas, Matplotlib, Seaborn)
- Object-Oriented Programming (OOP)
- Data Structures & Basic Algorithms
- SQL (data querying & analysis)
- Git & GitHub (version control)

### Data Analysis & Preprocessing

- Data cleaning & handling missing values
- Feature engineering
- Data normalization & scaling
- Exploratory Data Analysis (EDA)
- Handling imbalanced datasets

### Machine Learning

- Supervised Learning
  - Linear Regression, Logistic Regression
  - Decision Trees, Random Forest
  - KNN, SVM
- Unsupervised Learning
  - K-Means Clustering
  - PCA (dimensionality reduction)
- Model evaluation
  - Accuracy, Precision, Recall, F1-score
  - Cross-validation

### Deep Learning (Junior level — realistic)

- Neural Networks (basic)
- CNN for image classification
- TensorFlow / PyTorch (basic usage)

## PROJECTS

### Customer Churn Prediction System

Classification & Business Analytics Project

April 2025 – May 2025

- Analyzed customer behavior data to identify churn patterns and business risks
- Preprocessed large datasets by handling missing values and categorical variables
- Built Logistic Regression and Random Forest models for churn prediction
- Optimized models using feature selection and hyperparameter tuning
- Improved churn prediction accuracy compared to baseline models

**Tech Stack:** Python, Pandas, Scikit-learn, EDA

### House Price Prediction System

Machine Learning Regression Project

January 2025 – March 2025

- Built an end-to-end machine learning pipeline to predict house prices using real-world datasets

## Machine Learning with Python

Coursera

January 2024 – March 2024

- Supervised & unsupervised learning algorithms
- Model training, testing, and evaluation techniques
- Feature engineering & data preprocessing

## PROFESSIONAL EXPERIENCE

### Data Science Trainee

Analytics & ML Training Program

August 2025 – January 2026

- Worked on hands-on machine learning projects including prediction and classification systems
- Conducted exploratory data analysis on structured datasets
- Built end-to-end ML pipelines from data collection to model evaluation
- Applied feature selection techniques to improve model accuracy
- Documented results and presented insights

**Technologies:** Python, SQL, Pandas, Machine Learning Algorithms

### Junior Machine Learning Intern

AI Solutions Lab (Startup / Training Company)

February 2025 – May 2025

- Assisted in building and testing machine learning models for real-world datasets
- Performed data preprocessing including cleaning, normalization, and feature engineering
- Implemented regression and classification models using Scikit-learn
- Evaluated model performance using accuracy, RMSE, and cross-validation
- Collaborated with senior engineers to improve model efficiency

**Technologies:** Python, Pandas, NumPy, Scikit-learn, Jupyter Notebook

- Performed data cleaning, feature engineering, and exploratory data analysis to improve model performance
- Implemented Linear Regression and Random Forest models and compared results
- Achieved improved prediction accuracy through hyperparameter tuning and cross-validation
- Evaluated models using RMSE and performance metrics

**Tech Stack:** Python, Pandas, NumPy, Scikit-learn, Matplotlib

### Handwritten Digit Recognition

#### Handwritten Digit Recognition

Deep Learning Computer Vision Project

June 2025 – July 2025

- Designed and trained a Convolutional Neural Network (CNN) for digit classification
- Used MNIST dataset for training and validation
- Achieved high classification accuracy through model optimization
- Visualized training performance and prediction results

**Tech Stack:** Python, TensorFlow/PyTorch, CNN, NumPy

## PUBLICATIONS

### Customer Churn Analysis Using Supervised Learning Algorithms

Data Science Case Study

May 2025

- Investigated customer behavior data to predict churn probabilities
- Applied Logistic Regression and ensemble methods
- Highlighted business impact of predictive analytics in customer retention

### Predictive Modeling for Real Estate Price Estimation Using Machine Learning

Independent Technical Publication

March 2025

- Explored regression-based machine learning models for housing price prediction
- Compared Linear Regression, Random Forest, and feature-engineered approaches
- Demonstrated performance improvements using cross-validation techniques