



# INTERNSHIP PROGRAM

## Machine Learning



# About Us

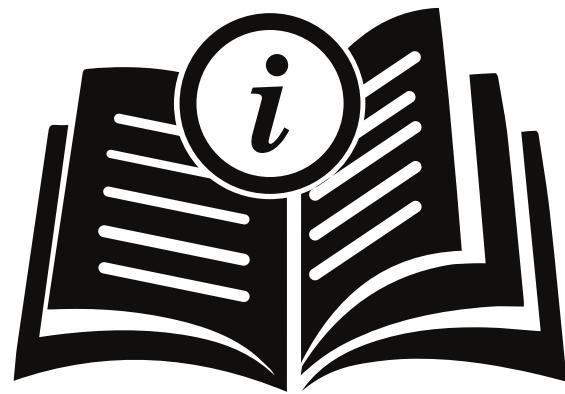


- Cognifyz Technologies is a leading technology company that specializes in the dynamic field of data science and excels in delivering impactful projects and solutions.
- The company offers a wide range of products and services, including artificial intelligence (AI), machine learning (ML), and data analytics tools.
- Cognifyz Technologies also provides training programs to enhance skills and knowledge in these areas.
- The company focuses on delivering innovative and cutting-edge solutions to meet the evolving needs of businesses.



**MSME BUSINESS FORUM**

**During your internship tenure, it is important to keep in mind the following points**



- Enhance your professional presence by updating your LinkedIn profile. Share your achievements, such as the offer letter or internship completion certificate, which you received from us. Don't forget to mention and tag Cognifyz Technologies in your posts. You can use hashtags like #cognifyz #cognifyzTech #cognifyzTechnologies to showcase your affiliation.
- Maintain academic integrity and respect intellectual property. Plagiarism and copying code are serious offenses that can lead to the termination of your internship and subsequent restriction from future opportunities with us.
- Demonstrate your work by sharing a video showcasing the completion of your tasks on LinkedIn. Remember to tag Cognifyz Technologies in your post and use relevant hashtags like #cognifyz #cognifyzTech #cognifyzTechnologies to engage with our community.

# SUBMISSION



- Create a professional video showcasing your internship projects and achievements.
- Host the video on LinkedIn to provide proof of your work and establish credibility among your peers. Consider tagging Cognifyz Technologies in your posts to ensure they are notified of your work.
- A **SUBMISSION FORM** will be shared later. Till then please continue your task and make a separate file of each level.
- When posting the video on LinkedIn, include the following hashtags to maximize visibility and engagement: #cognifyztechnologies #cognifyz #cognifyztech. Additionally, depending on your internship domain.

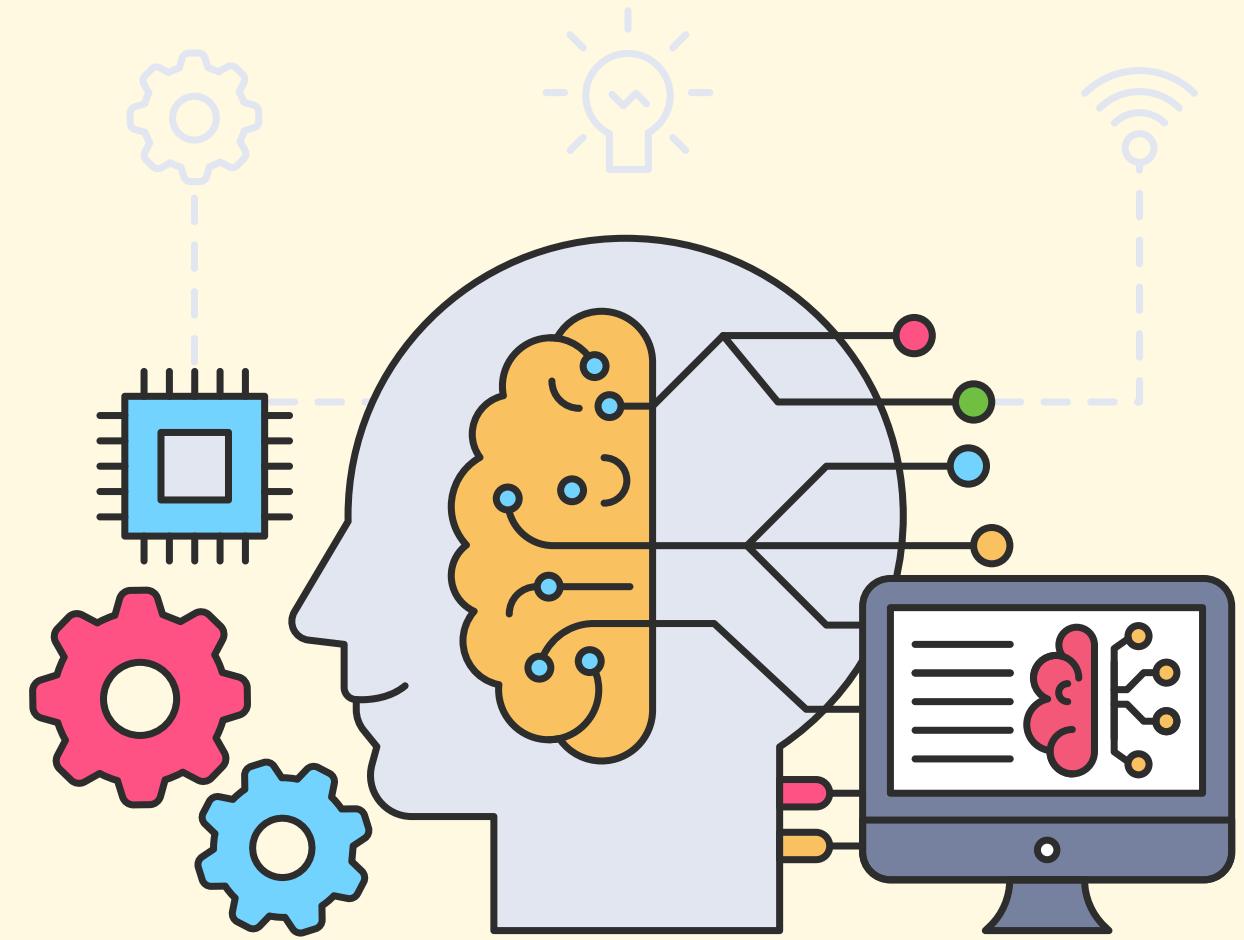




# MACHINE LEARNING

# TASK LIST

Welcome to our exciting Machine Learning internship program! To complete this internship, you will have the chance to choose any 3 Tasks Out of 4 Tasks . We've designed these Tasks to cater to your convenience and ensure an engaging and rewarding experience.



# Task 1



## Task: Predict Restaurant Ratings

- **Objective:** Build a machine learning model to predict the aggregate rating of a restaurant based on other features.
- **Steps:**
  - Preprocess the dataset by handling missing values, encoding categorical variables, and splitting the data into training and testing sets.
  - Select a regression algorithm (e.g., linear regression, decision tree regression) and train it on the training data.
  - Evaluate the model's performance using appropriate regression metrics (e.g., mean squared error, R-squared) on the testing data.
  - Interpret the model's results and analyze the most influential features affecting restaurant ratings.

# Task 2



## Task: Restaurant Recommendation

- **Objective:** Create a restaurant recommendation system based on user preferences.
- **Steps:**
  - Preprocess the dataset by handling missing values and encoding categorical variables.
  - Determine the criteria for restaurant recommendations (e.g., cuisine preference, price range).
  - Implement a content-based filtering approach where users are recommended restaurants similar to their preferred criteria.
  - Test the recommendation system by providing sample user preferences and evaluating the quality of recommendations.

# Task 3

## Task: Cuisine Classification

- **Objective:** Develop a machine learning model to classify restaurants based on their cuisines.
- **Steps:**
  - Preprocess the dataset by handling missing values and encoding categorical variables.
  - Split the data into training and testing sets.
  - Select a classification algorithm (e.g., logistic regression, random forest) and train it on the training data.
  - Evaluate the model's performance using appropriate classification metrics (e.g., accuracy, precision, recall) on the testing data.
  - Analyze the model's performance across different cuisines and identify any challenges or biases.



# Task 4

## Task: Location-based Analysis

- Objective: Perform a geographical analysis of the restaurants in the dataset.
- Steps:
  - Explore the latitude and longitude coordinates of the restaurants and visualize their distribution on a map.
  - Group the restaurants by city or locality and analyze the concentration of restaurants in different areas.
  - Calculate statistics such as the average ratings, cuisines, or price ranges by city or locality.
  - Identify any interesting insights or patterns related to the locations of the restaurants.



# How to Contact Us?

To find out more information,  
please contact us



@cognifyz-Techologies



contact@cognifyz.com



www.cognifyz.com



@cognifyz\_tech

