

# **Data Science**

Complete any 2 tasks

### **ABOUT US**

NeuroNexus Innovations is a beacon of technological advancement in the realm of IT services and Artificial Intelligence. Founded by a group of ambitious pre-final year students, our company is a testament to the power of youthful energy and innovative thinking.

# **INSTRUCTIONS** (Update your LinkedIn profiles)

For the Data Science internship, you will need to complete at least 2 tasks for successful completion of the internship.

Maintain a separate GitHub repository(name as NeuroNexus for all the tasks and share the link of the GitHub repo in the task submission form(it will be given later through email).

You can refer to online resources such as Google Search and read tutorials. Watch videos(For Help).

### **SUBMISSION**

A TASK SUBMISSION FORM will be shared later through email. Till then please continue your task.

A video need to be created to showcase your work, a demo of your effort.

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The video can be hosted on LinkedIn for proof of your work and to build credibility among your peers. You can tag @NeuroNexusInnovations in such posts.

Please add #neuronexus in each of your task video postings on LinkedIn, Additionally, you can also add hashtags such as #internship #webdevelopment. for more reach and visibility

### TASK 1 - TITANIC SURVIVAL PREDICTION

Use the Titanic dataset to build a model that predicts whether a passenger on the Titanic survived or not. This is a classic beginner project with readily available data.

The dataset typically used for this project contains information about individual passengers, such as their age, gender, ticket class, fare, cabin, and whether or not they survived.

### TASK 2 - MOVIE RATING PREDICTION WITH PYTHON

Build a model that predicts the rating of a movie based on features like genre, director, and actors. You can use regression techniques to tackle this problem.

The goal is to analyze historical movie data and develop a model that accurately estimates the rating given to a movie by users or critics.

Movie Rating Prediction project enables you to explore data analysis, preprocessing, feature engineering, and machine learning modeling techniques. It provides insights into the factors that influence movie ratings and allows you to build a model that can estimate the ratings of movies accurately.

# TASK 3 - IRIS FLOWER CLASSIFICATION

The Iris flower dataset consists of three species: setosa, versicolor, and virginica. These species can be distinguished based on their measurements. Now, imagine that you have the measurements of Iris flowers categorized by their respective species. Your objective is to train a machine learning model that can learn from these measurements and accurately classify the Iris flowers into their respective species. Use the Iris dataset to develop a model that can classify iris flowers into different species based on their sepal and petal measurements. This dataset is widely used for introductory classification tasks.

# TASK 4 - SALES PREDICTION USING PYTHON

Sales prediction involves forecasting the amount of a product that customers will purchase, taking into account various factors such as advertising expenditure, target audience segmentation, and advertising platform selection. In businesses that offer products or services, the role of a Data Scientist is crucial for predicting future sales. They utilize machine learning techniques in Python to analyze and interpret data, allowing them to make informed decisions regarding advertising costs. By leveraging these predictions, businesses can optimize their advertising strategies and maximize sales potential. Let's embark on the journey of sales prediction using machine learning in Python.

# TASK 5 - CREDIT CARD FRAUD DETECTION

Build a machine learning model to identify fraudulent credit card Transactions. Preprocess and normalize the transaction data, handle class imbalance issues, and split the dataset into training and testing sets. Train a classification algorithm, such as logistic regression or random forests, to classify transactions as fraudulent or genuine.

Evaluate the model's performance using metrics like precision, recall, and F1-score, and consider techniques like oversampling or undersampling for improving results.

### **ASK US FOR HELP!**

THE PURPOSE OF THIS INTERNSHIP IS TO LEARN AND GROW.

We have no desire to dictate to you. It is entirely up to you whether you seek guidance or not.

The given tasks may seem very easy or very difficult. We expect you to approach the tasks with professional diligence and give them the attention they deserve."

## **GET SOCIAL WITH US**

Webpage - <a href="https://neuronexusinnovations.weebly.com/">https://neuronexusinnovations.weebly.com/</a>

Gmail - nni1.contactcc@gmail.com

Linkedin - <a href="https://www.linkedin.com/company/neuronexusinnovations/?viewAsMember=true">https://www.linkedin.com/company/neuronexusinnovations/?viewAsMember=true</a>

# **Thank You**

Internship letter will be given on completion of tasks