

# **ARTIFICIAL INTELLIGENCE**

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.

### PERKS OF THIS INTERNSHIP

**Certificate of Internship** 

Letter of recommendation (Top first 8 submissions will be given)

Experience

Industry required skills as well as mentorship

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

For the Artificial Intelligence 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 - CHATBOT WITH RULE-BASED RESPONSES

Build a simple chatbot that responds to user inputs based on predefined rules. Use if-else statements or pattern matching techniques to identify user queries and provide appropriate responses. This will give you a basic understanding of natural language processing and conversation flow.

# TASK 2 - TIC-TAC-TOE AI

Implement an AI agent that plays the classic game of Tic-Tac-Toe

against a human player. You can use algorithms like Minimax with

or without Alpha-Beta Pruning to make the Al player unbeatable.

This project will help you understand game theory and basic search algorithms.

# TASK 3 - IMAGE CAPTIONING

Combine computer vision and natural language processing to build an image captioning AI. Use pre-trained image recognition models like VGG or ResNet to extract features from images, and then use a recurrent neural network (RNN) or transformer-based model to generate captions for those images

# TASK 4 - RECOMMENDATION SYSTEM

Create a simple recommendation system that suggests items to users based on their preferences. You can use techniques like collaborative filtering or content-based filtering to recommend movies, books, or products to users.

# TASK 5 - FACE DETECTION AND RECOGNITION

Develop an AI application that can detect and recognize faces in images or videos. Use pre-trained face detection models like Haar cascades or deep learning-based face detectors, and optionally add face recognition capabilities using techniques like Siamese networks or ArcFace.

#### **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>