AI Internship at Brainwave AI

AI Internship at Brainwave AI is a hands-on, industry-focused training program designed especially for engineering students. The internship covers Python programming, data analysis, machine learning, deep learning, computer vision, natural language processing, and generative AI. Students work on real-world projects, build AI applications, learn deployment using Streamlit/GitHub, and develop a strong portfolio. With practical mentorship and project-based learning, this internship prepares learners for real industry challenges and makes them job-ready in the field of Artificial Intelligence.

AI INTERNSHIP - COURSE CONTENTS

Brainwave AI - Accelerate Brainwave AI LLP

MODULE 1: Python Foundations for AI

Topics:

- Introduction to AI & ML
- Python installation & environment setup
- Variables, Data types, Operators
- Conditional statements & loops
- Functions, Modules, Packages
- List, Tuple, Dictionary, Set operations
- File handling
- Numpy Basics: arrays, indexing, math operations
- Pandas Basics: series, dataframes, cleaning, merging

Mini Tasks:

- Python exercises

- Data cleaning on sample CSV

MODULE 2: Data Analysis & Visualization

Topics:

- Data importing (CSV, Excel, JSON)
- Handling missing values
- Outliers: detection & treatment
- Feature scaling & transformation
- Exploratory Data Analysis (EDA)
- Matplotlib - basic to advanced charts
- Seaborn - statistical visualization

Project:

EDA on “Student Performance / Sales / Banking” dataset

MODULE 3: Machine Learning Basics

Topics:

- ML workflow and pipeline
- Supervised vs Unsupervised learning
- Train-Test split, Cross-validation
- Linear Regression
- Logistic Regression
- Decision Trees
- Random Forest
- KNN Classifier
- SVM
- K-Means clustering

- Model evaluation: accuracy, precision, recall, F1, ROC-AUC

Project:

Classification Project (Loan Prediction / Iris Dataset)

MODULE 4: Deep Learning Foundations

Topics:

- Introduction to Neural Networks
- Activation functions
- Forward & backward propagation
- Model training, loss functions, optimizers
- Introduction to TensorFlow / Keras
- Building ANN for classification
- CNN basics
- Image preprocessing
- Building CNN image classifier (CIFAR-10/MNIST)

Project:

CNN model for Handwritten Digit Recognition

MODULE 5: Computer Vision

Topics:

- OpenCV basics
- Image filters, contours, thresholding
- Face detection: Haar cascades

- Object detection basics
- Image augmentation techniques
- Real-time camera projects

Project:

Real-time Face Detection App

MODULE 6: Natural Language Processing (NLP)

Topics:

- Text preprocessing: tokenization, stemming, lemmatization
- Stopword removal
- TF-IDF
- Sentiment analysis
- Basic NLP models
- Chatbot fundamentals

Project:

Sentiment Analysis on Twitter Reviews

Rule-Based Chatbot

MODULE 7: Generative AI & LLMs

Topics:

- What are LLMs?
- Prompt engineering basics
- ChatGPT, Gemini, Llama models
- Text generation tasks

- Image generation basics
- LangChain introduction
- RAG (Retrieval Augmented Generation) basics
- Building GenAI Apps with API

Project:

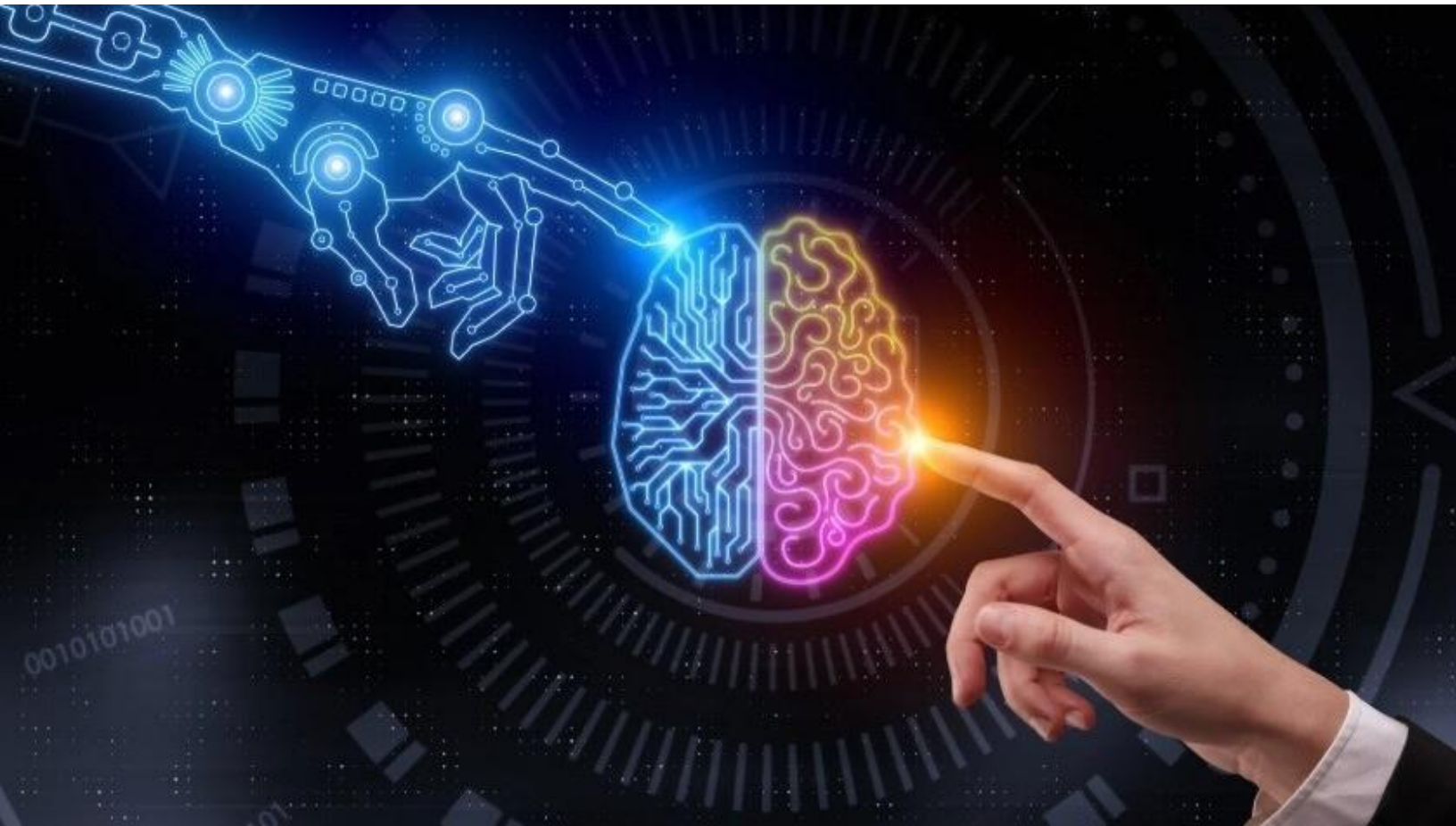
AI Q&A Chatbot using LLM

Image generation mini project

MODULE 8: Deployment, GitHub & Streamlit

Topics:

- Git & GitHub basics
- Project folder structure
- Creating requirements.txt
- Streamlit fundamentals
- Deploying ML models on Streamlit



- Creating APIs with Flask (Optional)
- Introduction to cloud deployment options

Mini Project:

Deploy your ML model on Streamlit

MODULE 9: Final Project + Assessment

Students choose one major project and complete end-to-end development:

Final Project Options:

- Student Performance Prediction System
- Loan/Money Lending Risk Prediction
- Fake News Detection (NLP)
- Face Mask Detection (Computer Vision)
- Sales Forecasting Using ML
- Disease Prediction System
- AI Chatbot with Streamlit
- Emotion Detection using CNN
- Product Recommendation System
- Resume Screening with NLP

DELIVERABLES FOR STUDENTS

- Internship Certificate
- Project Report (PDF + Code)
- GitHub Portfolio
- Internship Letter
- Real-time AI project
- Career guidance

AI INTERNSHIP – FEES & DURATION

Duration Options

- **45 Days Internship**
- **60 Days Internship**
- **90 Days Advanced Internship**

AI Internship (Engineering Students)

Includes Python, ML, DL, CV, NLP, GenAI, Deployment & Project.

FEES STRUCTURE

✓ **Option 1: 45 Days Internship**

Fee: ₹17500

✓ **Option 2: 60 Days Internship**

Fee: ₹21500

✓ **Option 3: 90 Days Internship (Advanced + Major Projects)**

Fee: ₹25500

ACCELERATE®
brainwave AI LLP
Delivering real-world intelligence

28, New Trimurty Complex, Hiran Magri, Sector-4, Udaipur-313002, Rajasthan
brainwaveudaipur@gmail.com , info@brainwaveindia.in
www.brainwaveindia.in | www.brainwaveindia.ai

Artificial Intelligence | Machine Learning | Deep Learning | Analytics | Blockchain | IOT