Vidyawan
PLAY TO LEARN, EARN TO GROW

Azadi Ka Amrit Mahotsav
MSME MICRO, SMALL & MEDIUM ENTERPRISES सूक्ष्म, लघु एवं मध्यम उद्यम OUR STRENGTH • हमारी शक्ति
Ministry of MSME, Govt. of India

Generative AI Project Development Internship

Course Objectives

1. Understand the fundamentals and differences between Generative AI and Large Language Models (LLMs).
2. Learn to build AI-powered applications such as chatbots, voice assistants, and emotion recognition systems using Python and APIs.
3. Master practical use of Hugging Face Transformers, Google Gemini API, and Stable Diffusion for NLP and computer vision tasks.
4. Develop skills in fine-tuning and deploying transformer models for text summarization, classification, paraphrasing, and translation.
5. Explore real-world AI projects including resume parsing, MCQ generation, and recommendation systems.
6. Implement end-to-end AI pipelines integrating machine learning models with web or desktop applications.

Prerequisites

- Basic programming knowledge in Python.
- Familiarity with machine learning and natural language processing concepts is helpful but not mandatory.
- Understanding of APIs and cloud-based AI services is a plus.

Tools & Environment

- Python programming environment (Anaconda, Jupyter Notebook, or any IDE).
- Hugging Face Transformers library and related Python packages.
- Access to Google Gemini API or equivalent LLM APIs.
- Stable Diffusion tools for image generation.
- Streamlit or Flask for building demo applications.

Beyond Objectives Learning

- Gain hands-on experience in building and deploying AI-powered chatbots and assistants. Learn to handle multi-modal AI tasks including text-to-image and image-to-text generation.
- Develop skills to integrate AI models with real-time applications for emotion detection and personalized recommendations.

Understand best practices in fine-tuning and optimizing transformer-based models.

- Prepare for roles in AI development, NLP engineering, and data science with advanced generative AI tools.

Sr.	Title	Topic	Objective
1	Generative AI Explained	Stable Diffusion Vs HuggingFace	Generative AI basics
2	Text-to-Image Generation with Python and Stable Diffusion	Text-to-Image Generation	Creating images from text prompts using Stable Diffusion
3	Understanding Large Language Models (LLMs) vs Generative AI	LLM vs Generative AI	Key differences and similarities
4	Building a Human Attribute Detection Using Python & Generative AI	Attribute Detection	Age, gender, mood recognition system
5	MCQ Generator using Generative AI LLM	MCQ Generator	Auto-generate MCQs from text files using Google Gemini

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8	Resume Parsing with Google Gemini LLM	Resume Parsing	Automated resume parsing and form filling
9	How To Paraphrase Text Using Transformer In Python	Text Paraphrasing	Using transformers for paraphrasing
10	Create a Voice Assistant with Python Google AI	Voice Assistant	Building AI voice assistant
11	Building a Chatbot with Google Gemini API - Part 1	Chatbot Development	Intelligent chatbot using Google Gemini API
12	Building a Chatbot with Google Gemini API - Part 2	Chatbot Development	Continuation
13	Building a Chatbot with Google Gemini API - Part 3	Chatbot Development	Continuation
14	Building a Chatbot with Google Gemini API - Part 4	Chatbot Development	Continuation
15	Building a Chatbot with Google Gemini API - Final Part	Chatbot Development	Completion
16	Building a Diet & Workout Recommendation System	Diet & Workout Planner	AI-powered personalized recommendation system
17	Mastering NLP Transformers: A Comprehensive Pipeline Tutorial	NLP Transformers	Comprehensive Hugging Face transformers tutorial
18	Multi-Class vs Multi-Label Datasets	Tokenization and Target Encoding	Dataset Preprocessing
19	Mental Health Text Classification with HuggingFace BERT	Text Classification	Anxiety & depression detection using BERT
20	Fine-Tuning DistilBERT for Intent Detection	Intent Detection	Conversation message classification
21	Paraphrase Generation Using LLM T5	Text Generation	Paraphrase generation using T5
22	Mastering Text Summarization with HuggingFace Transformers	Text Summarization	Fine-tuning and deployment of summarization model
23	Machine Translation With Hugging Face Transformers	Machine Translation	Language translation using Seq2Seq
24	Build a Healthcare Customer Support Chatbot Using Transformer	Healthcare Chatbot	AI chatbot for healthcare support
25	Build a Document Classification Model with BERT	Document Classification	Classify invoices, orders, reports
26	Build Product Recommendation With BERT Transformer	Product Recommendation	E-commerce recommendation engine
6	AI Robot Detects & Speaks Your Emotions in Real-Time	Emotion Detection Robot	Live emotion recognition and speech
7	Extracting Image Details Using Generative AI with Gemini	Image-to-Text App	Extract details from images using AI

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27	Build a Powerful NER Model with Hugging Face Transformers	Named Entity Recognition	Fine-tuning DistilBERT for NER
28	Building Code-Snippet Search Engine using HuggingFace Transformer	Code Search Engine	Code snippet search chatbot
29	Building a Recipe Generator Using T5 Transformers	Recipe Generator	Generate recipes using deep learning
30	Building a Football Player Face Recognition with OpenCV and Generative AI	Face Recognition	Player face recognition and detail extraction
31	Building a Language Translation with GenAI	Language Translation	Streamlit app for real-time AI translation
32	Malicious URLs Detection in Python	Scam & Phishing Detection	Detect phishing URLs with ML and GenAI
33	Diet and Workout Recommendation System using Langchain and OpenAI APIs	Recommendation System	Food and workout recommendations
34	Unlocking Conversations: DialoGPT for Dynamic Text Generation	Text Generation Chatbot	Using DialoGPT for conversation
35	Financial Data Extraction Tool Using OpenAI	Data Extraction Tool	Extract financial data using OpenAI

Minimum Completion Criteria:

- Complete all modules and MCQs
- Attempt weekly marathons
- Submit at least 2 out of 5 projects in the final level
- Attend minimum 80% of lessons

Certificate Details

- Upon successful completion of the Internship, learners will receive a Government-Recognized Certificate from Vidyawan, a registered MSME enterprise *(Udyam Registration No: UDYAM-WB-14-0205610)*.

One Month Internship Certificate

Weekly Marathon Participation Certificate

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Performance-Based Badge System

- Gold Badge – For Top Performers (90%+ score, completed 4+ projects)
- Silver Badge – For consistent performance (70–89%)
- Copper/Participant Badge – For all learners who complete the program

Contact Information

For queries, registration, or collaboration, feel free to contact us:
Vidyawan – Internship & Skill Development Platform
(A Government-registered MSME – UDYAM-WB-14-0205610)

- Email: contact.vidyawan@gmail.com
- Website: www.vidyawan.in (Get in touch section)
- Location: West Bengal, India
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