

KAVYA SINGH

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🔊 Kavv-13

Passionate Computer Science student with experience in generative AI projects using GPT and Stable Diffusion. Skilled in Python, data manipulation, deep learning, NLP, prompt engineering, and building applications with Streamlit, Flask, and FastAPI. Looking to learn and contribute in AI-driven projects.

EDUCATION

Central University of Jammu

B.Tech in Computer Science & Engineering

SJS Public School

Intermediate

Nov 2022 – May 2026

CGPA: 8.72(till 5th-sem)

March 2020 – April 2021

Percentage: 86.4%

PROJECTS

Smart Traffic Management System Using IoT

July 2024

- Developed an IoT-based traffic management system using Python, OpenCV, and sensors for real-time vehicle monitoring, dynamic signal control, and emergency vehicle prioritization with AI-powered object detection and traffic optimization.

Twitter Sentiment Analysis using NLP

March 2025

- Developed an NLP model to classify sentiment of 1.6M tweets using Logistic Regression, achieving 77.8% accuracy. Engineered features with text preprocessing and Porter Stemming.

Text Generation with GPT-2

June 2025

- Fine-tuned GPT-2 on custom datasets for coherent text generation. Applied NLP techniques such as tokenization, embeddings, and sequence modeling.

Image Generation with Pre-trained Models

July 2025

- Built text-to-image pipelines using Stable Diffusion DALL-E-mini. Leveraged LLMs, RAG pipelines, NLP, and prompt engineering for intelligent captioning.

EXPERIENCE

Central University of Jammu

June 2024 – July 2024

Intern - Smart Traffic Management

- Developed a real-time accident detection system using AI and Computer Vision to enhance road safety and emergency response.
- Implemented crash detection with a VGG16-based CNN model and integrated location tracking (Geocoder API) and instant SMS alerts (Twilio API) for faster rescue operations.

IIT Kharagpur (B-CLUB)

August 2023 – September 2023

Machine Learning Intern

- Completed a Machine Learning Course at IIT Kharagpur (B-CLUB, TECHNOPHILIA) in August and September 2023. Gained practical experience in model development and implementation.

TECHNICAL SKILLS

Languages: Python, C/C++, SQL

AI Techniques: NLP, Text Preprocessing, Transformers, RAG, LLMs

Frameworks: Pandas, Scikit-learn, Keras, TensorFlow, Re, PyTorch, FastAPI

EXTRACURRICULAR

Thapar Institute of Engineering and Technology

Feb 2024

Participant - 7-Day Workshop on Explainable AI and IoT in Smart Solutions

Patiala, India

Shri Mata Vaishno Devi University

Feb 2025

Participant - 5-Days Skill development program on Soft Computing and Applications

Katra, India

Google Developer Group, CU Jammu

Present

Member

Jammu, India

CERTIFICATIONS

- Python Programming
- Machine Learning
- Generative AI
- SWATI.AI Learnathon
- Gen AI Study Jams Program