

# Sharmila P

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## EDUCATION

2022-Present

**B.E(CSE)** - Kamaraj College of Engineering and Technology | **CGPA: 8.08 | 81%**(Till 5th Semester)

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## PROJECTS

### 1. Gunshot Detection using Machine Learning

- Designed a real-time model that detects gunshots using MFCC features and CNN, enabling instant alert mechanisms.
- Technologies Used:** Python, Librosa, NumPy, MFCC, Scikit-learn, CNN, Kalman Filter, Sparse Adam, Discriminant Crossover Component Analysis

### 2. Question Paper Generator using LLM

- Built a Flask app that uses Gemini AI to generate question papers from syllabus PDFs, categorized by Bloom's taxonomy.
  - Technologies used:** Flask, Gemini API, JSON, PDF, Prompt Engineering, LLM
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## INTERNSHIP

**Pruvity HR Private Limited Solutions, Madurai**

**AI/ML Learning Intern** (30 days)

- Worked on deep learning-based solutions and participated in model training.

### Project : LLM-based Data Analytics & Visualization Tool

- Built a tool that uses an LLM to understand natural language queries and generate data visualizations from Excel files. It maps query intent to relevant columns using NLP and cosine similarity.
  - Technologies used:** Python, Transformers (FLAN-T5), Pandas, Matplotlib, Scikit-learn, CountVectorizer, Cosine Similarity, NLP
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## TECHNICAL SKILLS

Languages	Python   Java   C   HTML   CSS   Java Script   PHP
Tools	Github   VScode   Streamlit   Hugging face   Automation Tools   Figma
Technologies/Frameworks	RestAPI   Prompt Engineering   RAG   Flask   NLTK   LLM   Machine Learning   UI/UX
Database	SQL   MongoDB   VectorDB
Core Concepts	Machine Learning   Deep Learning   Database Management   Networking Essentials

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## ACHIEVEMENTS

- Secured 3rd Prize among competing teams at **NeonHack25** for developing an AI-powered Question Paper Generator.
  - Title of "**Deep Chat**" project proposal selected by **FAER** for its innovative NLP-based educational chatbot design.
  - Participated in **VIVID 9.0** - National level Project Competition at SSN College of Engineering, Chennai.
  - ISRO** project proposal got selected under the title "AstroSat" for its scientific innovation and research relevance.
  - Presented a Paper titled "Microphone-Based Gunshot Detection Using Direction of Arrival Method" at **International Conference**, Innovation in Computing and Communication '25 (ICICC'25).
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## CERTIFICATIONS & COURSES

- Completed Microsoft Azure – **International Certification Course**
- Completed Python for Data Science, Deep Learning, and SQL for Database Management – **NPTEL**
- Completed Machine Learning (Beginner), Python, and Java – Infosys Springboard
- Completed Networking Essentials – Cisco
- Completed MongoDB Course - MongoDB University