

# Sunny Kumar

EECS | 12041520

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🐙 GitHub Profile

🌐 LinkedIn Profile

## EDUCATION

- **Indian Institute of Technology(IIT), Bhilai Chhattisgarh** 2020-24  
*B.Tech EECS Department* CGPA: 7.25
- **Saryu High School, Bihar Sitamarhi** 2017-2019  
*12th (Science)* Percentage: 84.8

## PROFESSIONAL EXPERIENCE

- **Software Engineer-GenAI** 7/2024-Present  
*RADCOM*
  - Developing tools similar to **Wireshark** for analyzing **PCAP files** to facilitate telecom-related **network troubleshooting** and **Root Cause Analysis** through text-based interaction, aligned with **3GPP standards**.
  - Establishing a **NER (Named Entity Recognition)** benchmark on **3GPP datasets**, which will serve as the foundation for building a **Knowledge Graph (KG)** focusing on key entity types such as **Protocols, Network Functions, Interfaces, and Technologies**.

## ACHIEVEMENT

- Authored "**What My Packet Capture Says**," presenting a **conversational agent** for **network troubleshooting** and **packet analysis**, accepted at the prestigious **CODS-COMAD** international conference.  
[See Paper](#)
- Solved **600+** Problems on **LeetCode**

## TECHNICAL SKILLS

- **Programming Languages/Technical Proficiency:** C++, Python, Java, DSA, Object-Oriented Programming (OOP), MySQL, FastAPI, RestAPI, Vector DB, CUDA.
- **Deep Learning Frameworks:** PyTorch, TensorFlow, Keras.
- **Libraries/Tools:** LangChain, LangGraph, Hugging Face, Pydantic Model, Spring Boot, IntelliJ IDEA, Redis, Elastic Search, Flask, Postman, Scikit-learn, NumPy, Pandas, Matplotlib, Seaborn, LaTeX, GitHub.
- **Areas of Interest:** ML, NLP, Backend, Data Structures and Algorithms (DSA).
- **Coding Profiles:** [LeetCode](#), [GeeksforGeeks](#)

## PERSONAL PROJECTS

- **Telecom Bot for RADCOM with 82% accuracy on QA Datasets and 81.2% on MCQ Datasets** 08/2024-2/2025  
*Developed a chatbot to assist network engineers in understanding telecom concepts by referencing 3GPP standards* [GitHub](#)
  - Developed an AI-powered chatbot to assist network engineers in understanding telecom concepts, referencing 3GPP standards.
  - Fine-tuned LLaMA 3.2 (3B) model to enhance domain-specific responses.
  - Provides not only textual explanations but also related diagrams and DOCX files for better comprehension.
  - **Technology Used:** RAG, Langgraph, LLaMA 3.2 (3B), TypeScript, Python, Qdrant VDB, AWS S3.
- **Fine Tuning LLM Model on Telecom Datasets with Bleu Score 0.43** 06/2024-07/2024  
*Fine-tuning the Question and Answer Datasets for Enhance User Experience by solving telecom related Queries* [GitHub](#)
  - LLaMA2-7B LLM model used for Fine-tuning and for optimization QLoRA from PEFT has been used
  - for speedup the training and reducing the number of parameter LoRA techniques has been used
  - **Technology Used:** Python, SFT, QLoRA, LoRA, Rouge Score.
- **Realtime Docs-Based Chat App (RAG System)** 07/2024-08/2024  
*Developed a Streamlit-based web application enabling users to interact with uploaded documents in real-time.* [GitHub](#)
  - Implemented a user-friendly interface using Streamlit to host the application, providing seamless document uploads and query inputs.
  - Integrated Pinecone for vector database management, enabling fast and scalable retrieval of relevant document sections based on user queries.
  - **Technologies Used:** Streamlit, OpenAI APIs, Meta LLaMA3-8B, Pinecone, Python.

## POSITIONS OF RESPONSIBILITY

- Led the Registration and Help Desk team for the 'Meraz 2.0' IIT Bhilai Festival in November 2022, driving pass sales and boosting event awareness, resulting in strong ticket sales.