

# ANANYA REETHA NOBLE

Computer Science Student | Exploring AI & LLMs | Enthusiastic About Software Engineering and FOSS

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## PROJECTS

### Parameter-Efficient Fine-tuning of LLMs for Algorithm-to-Python-Source-Code Translation using LoRA

- Fine-tuned the Mistral 7B language model using LoRA for translating high-level algorithmic descriptions into executable Python code.
- Created a custom training dataset using the Gemini API to simulate diverse algorithm structures for improved generalization. ([Dataset](#))
- Published and presented findings at ITechCET 2024, later featured in AIP Conference Proceedings ([DOI](#))

### Feature Selection and Salary Prediction using Rough Set Theory

Applied Rough Set Theory for feature selection and developed a regression model to predict software developer salaries using Python, Scikit-learn, and Pandas.

### Portfolio Website

[Portfolio](#) | [Source Code](#)

Developed a responsive personal portfolio website using HTML, CSS, and JavaScript, featuring a light/dark mode switch, clean UI/UX, and interactive sections.

### Air Quality Prediction Model for PM2.5 Levels in India

Built a machine learning model in Python to predict PM2.5 pollutant levels from historical air quality data through time-series analysis and feature engineering.

### Felicity: A Beginner-Friendly Guide to Data Structures and Algorithms

Created a beginner-friendly GitHub repository with Python implementations and clear explanations of fundamental data structures and algorithms, including pseudocode and problem-solving patterns.

## LEADERSHIP AND VOLUNTEERING EXPERIENCE

- Served as **Documentation Lead** across multiple technical and student communities, including **Diamond Jubilee Takshak '22 (Tech Fest of MACE Kothamangalam)**, **NetX Club (FOSS Club)**, and **MACE IoT Club**, where I coordinated documentation efforts, organized content workflows, and contributed to internal and external communications.
- Contributed as a **Content Writer** for student-led tech communities including **NetX Club**, **IEEE Kochi Hub**, and **IEEE MACE SB**, where I authored newsletter articles, curated technical content, and supported internal communication through well-structured documentation.

## EDUCATION

**Mar Athanasius College of Engineering (APJ Abdul Kalam Technological University)** **Kothamangalam, Kerala**  
*B. Tech in Computer Science and Engineering (CGPA: 9.25)* *May 2024*

**Hill Blooms School (affiliated to Central Board of Secondary Education)** **Mananthavady, Kerala**  
*AISSCE (Class XII) - Percentage: 95.4* *March 2020*  
*AISSE (Class X) - Percentage: 93.4* *March 2018*

**Master's in Computer Science (Incoming Student)** *Program Begins in late August 2025*

## SKILLS, INTERESTS and CERTIFICATIONS

**Skills:** *Programming Languages:* Python, C, Java, SQL, HTML, CSS, JavaScript; *Tools & Platforms:* Git, VSCode, Unix/Linux, Google Colab, GitHub; **LLM:** Hugging Face Transformers, LoRA;

**Interests:** Software development, FOSS, Artificial Intelligence and Machine Learning, Research, Documentation, Technical Writing, Blogging, Creative Writing.

**DSA Practice:** Solved 80+ problems on Leetcode/GFG.

**Certifications:** Python for Data Science (IBM); Design Thinking (LinkedIn Learning & PMI); Responsive Web Design and Legacy JavaScript Algorithms & Data Structures (FreeCodeCamp);