Urshitha Sai T T K

Mumbai
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Summary

Motivated student with a strong willingness to translate academic knowledge into impactful real-world applications. Demonstrates effective communication skills and a collaborative mindset, contributing fresh perspectives and a robust work ethic to team environments.

Skills

Web Development, UI/UX (Figma), AI/ML, Python, MySQL, Teamwork, Communications, C programming, Java

Experience

AI/ML Intern

Nuclear Power Corporation of India Ltd (NPCIL) • Mumbai
12/2024 - 03/2025

- Built an **offline HR Chatbot** to answer employee queries from PDF/DOC files in a secure, air-gapped setup.
- Evaluated models (GPT, Phi-3, Falcon, T5, LLaMA); selected **LLaMA 3.2-1B** for fast, CPU-only inference.
- Used **pdfplumber** and **spaCy** for text extraction and tokenization.
- Implemented **RAG** pipeline with chunking and embedding caching for faster, contextual replies.
- Fine-tuned model on 100+ HR documents (~35–40 pages each) to improve domain accuracy.
- Resolved output issues (gibberish, latency, context loss) by tuning training and retrieval logic.
- Worked on integrating the chatbot into a local web app accessible via LAN.

Web Development

Bhabha Atomic Research Center (BARC) • Mumbai
05/2024 - 07/2024

- Developed the **frontend** of a **medical contouring web app** to assist doctors in cancer treatment planning.
- Built responsive UI components for **contour visualization and annotation**.
- Focused on **user-friendly design** and **performance optimization** for real-time clinical use.

Web Developer/Backend

Pillai College of Engineering • Navi Mumbai
05/2024 - 08/2024

- Built a web portal for students, faculty, admin, and TPO to manage internship processes.
- Implemented student registration, TPO announcements, and internship tracking features.
- Designed a MySQL database for structured internship data management.
- Used PHP for backend logic and role-based access control.

Education

BTech CSE

Pillai College of Engineering • Navi Mumbai
05/2025

- 8.7 Cgpa
- Participated in the Smart India Hackathon
- Member of the IEEE
- Publications: Voxify - A Gateway to Multilingual Conversations.

12th Grade

Atomic Energy Central School • Mumbai
06/2021
- percentage: 91%

10th Grade

Atomic Energy Central School • Mumbai
05/2019
- Percentage: 91%

Certificates

Python Data Structures - University of Michigan, Programming for everybody - University of Michigan, Introduction to Programming Using Java - Udemy

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Projects

- **Offline HR-Chatbot** - Developed an offline AI-based HR Chatbot using LLaMA 3.2-1B to answer employee queries from HR documents in a secure, internet-restricted environment. Implemented RAG, fine-tuned the model on 100+ PDFs, and optimized it for CPU-only inference.
- **Contouring Website** - Developed the front end of a medical contouring web app to assist doctors in cancer treatment. Focused on responsive UI design for accurate visualization and ease of use in clinical settings.
- **Internship Website** - Designed and developed the backend of an internship management portal using PHP and MySQL. Enabled role-based access, registration, announcements, and real-time internship tracking.
- **Voxify – Speech-to-Speech Translation System** - Built a real-time speech-to-speech translation model using IndicTrans2, supporting multiple Indian languages. Integrated language detection, speech recognition, translation, and text-to-speech synthesis to enable seamless multilingual voice communication.
- **Spa & Salon Website** - A simple HTML, CSS, JS project.