

Harsh Kumar

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EDUCATION

Indian Institute of Information Technology, Sri City

Bachelor of Technology - Electronics & Communication Engineering; CGPA: 7.5

Chittoor, India

Nov 2022 - June 2026

D.A.V public School

CBSE(X); Percentage: 91.4%

India

April 2009 - April 2019

EXPERIENCE

Research Assistant — IIIT Sri City

June 2025 – August 2025

Python and AI Backend Development

- Designed and built production-grade Python services and RESTful APIs using FastAPI and Flask to deploy AI-based IoT anomaly detection systems.
- Implemented scalable data preprocessing and feature engineering pipelines using NumPy and Pandas for high-volume sensor and network data.
- Integrated CNN, attention-based deep learning models, and XGBoost into backend inference workflows for real-time prediction and monitoring.
- Developed MLflow-driven experiment tracking, model versioning, and validation pipelines to ensure reproducible and reliable model deployments.

CodeClause

Dec 2025 – Jan 2026

Data Science Intern

- Built Python-based data pipelines for cleaning, transforming, and preparing real-world datasets for machine learning workflows.
- Performed exploratory data analysis (EDA) and feature engineering to identify patterns, reduce noise, and improve model readiness.
- Trained and evaluated supervised learning models, producing reproducible notebooks and technical reports for business-driven analytics.

PROJECTS

Quickart ↗

(GitHub [Q](#))

Full-Stack E-commerce Platform

- * Built a production-grade e-commerce platform using Next.js 14 with SSR and ISR to deliver fast, SEO-optimized, and scalable product pages.
- * Developed serverless backend APIs for product, cart, and order management using MongoDB with validation, transactions, and optimized indexing.
- * Implemented real-time cart synchronization using Convex with optimistic UI updates, ensuring cross-device consistency and high performance.
- * Technologies: Next.js 14, TypeScript, React, MongoDB, Convex, Clerk Auth, Serverless APIs

ResoTrack ↗

(GitHub [Q](#))

Full-Stack AI-Powered Resume Intelligence & Matching Platform

- * Built a serverless AI resume analyzer using React.js and TypeScript, integrating cloud-based storage, AI processing pipelines, and authentication on the Puter platform.
- * Implemented AI-powered resume analysis with PDF processing and Gemini API integration to deliver ATS-compatible scoring and improvement insights.
- * Designed application workflows with real-time feedback and dynamic routing, ensuring reliable user interaction and performance.
- * Technologies: React.js, TypeScript, Puter Cloud APIs, Gemini API, Tailwind CSS, React Router

AI-Powered Medical Chatbot ↗

(GitHub [Q](#))

LLM-Driven Healthcare Assistant with RAG and API Deployment

- * Built an LLM-powered medical assistant using GPT-4 and Gemini with prompt engineering and retrieval-augmented generation over Pinecone vector search.
- * Designed LangChain pipelines for document ingestion and semantic retrieval, enabling context-aware medical responses.
- * Implemented Flask-based inference APIs with caching, logging, and error handling for scalable deployment.
- * Technologies: Gemini, GPT-4, LangChain, Pinecone, Hugging Face, Flask, AWS, GitHub Actions

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C/C++

Backend: FastAPI, Node.js, Express.js, REST APIs, Auth, API Design, AWS Lambda

Frontend: React, Next.js, TypeScript, HTML, Tailwind CSS, Real-time Dashboards, Data Visualization

Databases: PostgreSQL, MongoDB, MySQL, Redis

Cloud & Infra: AWS Lambda, Amazon S3, Amazon SQS, CloudFront, Serverless

DevOps & Tools: Docker, CI/CD, GitHub Actions, Git, Linux

AI / LLM (Bonus): LLM APIs, LangChain, Vector DBs , Open Source Models ,RAG , GENAI

Core CS: DSA, OOPS, OS, System Design (Basic)

ACHIEVEMENTS & CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional [Link](#)
- Complete Data Science, Machine Learning, Deep Learning, NLP Bootcamp — Krish Naik [Link](#)
- Solved 250+ problems on LeetCode/GfG with focus on algorithms, data structures, and problem-solving.

LEADERSHIP & RESPONSIBILITIES

IIIT SriCity Cricket Team Captain

September 2024 - nov 2025

IIIT Sri City Intercollegiate Team

- Captained the IIIT Sri City cricket team in intercollegiate tournaments, leading match strategy and on-field performance.

Events Coordinator at Abhisarga

March 2024 - December 2024

Annual College Technical Festival

- Managed technical event logistics for 1,500+ participants across 15+ competitions, ensuring 100% on-time execution.