

JEET SHARMA

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EDUCATION

University of Massachusetts - Amherst
Master's, Computer Science

Sep 2024 - Dec 2025
GPA: 3.78

University of Mumbai
Bachelor's, Computer Science

Jun 2019 - May 2023
GPA: 3.86

PROFESSIONAL EXPERIENCE

Lab Systems Pvt. Ltd.

Software Engineer

Remote

Jan 2023 - Aug 2024

- Engineered ingestion and search pipelines with Elasticsearch and MongoDB; optimized evidence processing time by 50% using multi-threading and multi-processing, enabling analysis of 100GB+ cases within an hour.
- Developed 50+ RESTful APIs in Python (Flask) with advanced caching strategies, achieving 2x API throughput and reducing average latency from 2s to less than 1s under high concurrency
- Integrated AI-based modules for object detection, face/skin recognition, and OCR, achieving 90%+ precision on forensic datasets; deployed LLM-powered summarization via Dockerized Gemma servers
- Led and mentored a team of 5 developers, overseeing architecture reviews, sprint planning, GitHub project management, and ensuring 100% on-time delivery for 4 major release

Software Engineer Intern

Aug 2022 - Dec 2022

- Designed and built a high-performance Bitcoin Node Indexer from scratch, capable of indexing and querying over 2 billion blockchain transactions outperforming open-source indexers (e.g. ElectrumX, BTC-RPC-Explorer) by enabling real-time forensic search through a hybrid MongoDB + LevelDB architecture
- Created risk analysis algorithms utilizing heuristics to flag high-risk transactions across 5+ cryptocurrencies (Bitcoin, Ethereum, XRP); improved detection accuracy by 35%
- Automated OSINT web scraping pipelines with Selenium, collecting and processing 10,000+ data points/month to aid Anti-Money Laundering (AML) operations

Karpuragaurai Technologies

Software Engineer Intern

Remote

May 2025 - Present

- Designing event-driven architecture with 7+ real-time trigger nodes (WhatsApp, SMS, Gmail, Twilio, Holrr, Simplotel), achieving sub-1 second latency for customer interactions
- Integrated vector-based search (Pinecone) with backend APIs to enable 95%+ accurate RAG-based responses for user inquiries

PROJECTS & OUTSIDE EXPERIENCE

LLM-Router - [Link to project](#)

- Engineered an LLM routing system that optimally directs prompts to models based on cost-performance trade-offs, reducing reliance on expensive models like GPT-4o while maintaining high output quality
- Reduced inference costs by 70% by implementing three-tier model selection strategies, routing across different models

AI-Powered Recipe App - [Link to project](#)

- Built an full stack AI-driven recipe generation platform enabling users to create personalized meals based on available ingredients, dietary preferences, and allergies, leading to a 40% reduction in recipe search time
- Integrated JWT authentication, RESTful APIs, and PostgreSQL, supporting 5+ social features (Comments, Bookmarks)

Medilog: A Blockchain-Based Pharmaceutical Supply Chain System - [Link to project](#)

- Authored an Ethereum-based pharmaceutical supply chain platform with Solidity smart contracts, tested using Hardhat and Ganache.
- Enabled tamper-proof tracking of medical drugs, ensuring trust and presented solution to the Indian Medical Association

Covid-19 Detection using Chest X-RAY - [Link to project](#)

- Developed a web app for Covid-19 detection from Chest X-ray images, achieving 90%+ accuracy in classification
- Improved model performance, improving efficiency by 30% using data augmentation and hyperparameter tuning

COMPETITIVE PROGRAMMING ACHIEVEMENTS

• ICPC Regional Rank: 365th (2020), 699th (2022) • Google Hash Code (2022)- Rank 1846

PUBLICATIONS & PATENTS

- Research Paper: "Lung Disease Detection using Chest X-Ray" IRAR (Impact Factor: 7.17) [paper-link](#)
- Patent: MediLog- (Granted), German Patent File No - 20 2023 102 823.3 , Date – 19 September 2023 [patent-link](#)

SKILLS AND CERTIFICATIONS

Skills: Databases, OOP, Full Stack, Big Data, Statistics, Machine Learning, Data Analysis, Linear Algebra, Data Structures & Algorithms, Analytics & Visualization, Blockchain, REST APIs

Languages: Python, SQL, NoSQL, Javascript, Bash, R, C/C++

Libraries and Framework: Flask, React.js, NextJS, Node.js, MongoDB, Elasticsearch, Git/GitHub, Pytorch, Scikit-learn, Docker, MS OFFICE, Matplotlib, Solidity, NumPy, Pandas

Certifications: AWS Cloud Foundations, CCNAv7 (Networks, Switching & Routing, Enterprise Networking)