

NALIN SHARMA

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Delhi, Delhi - 110052, India

OBJECTIVE

Motivated Computer Science student passionate about AI products, software engineering, and user-focused problem solving. Experienced in building AI-powered applications and full-stack systems using Python, PostgreSQL, NLP, and modern development tools. Interested in product thinking, UI/UX improvement, and building scalable AI products that solve real-world problems.





EXPERIENCE

- **Infosys Springboard 5.0**  October 25 - December 31, 2024
Internship 5.0 (B2) MediScan: AI-Powered Medical Image Analysis for Disease Diagnosis India
 - Developed the MediScan system, an AI-powered solution for accurate eye disease detection, achieving improved diagnostic accuracy and early detection capabilities.
 - Implemented advanced preprocessing and image segmentation techniques, enhancing model performance.
 - Created machine learning pipelines for feature extraction and model training, ensuring scalable deployment.
 - Applied statistical methods to analyze healthcare data, identifying patterns for improved diagnostic insights.

EDUCATION

- **Bachelor of Technology in Computer Science & Engineering - Artificial Intelligence** 2023 - 2027
Chhatrapati Shahu Ji Maharaj University (formerly Kanpur University), UGC Tier-I Univ., NAAC Rank: A++ Kanpur, India
 - CGPA: 7.41/10 (5th semester/ 3rd year)
- **12th Standard - Central Board of Secondary Education (CBSE)** 2023
Lancer's Convent Senior Secondary School, Prashant Vihar, Rohini, Delhi 110085 Delhi, India
 - Percentage: 72%
- **10th Standard - Central Board of Secondary Education (CBSE)** 2021
Lancer's Convent Senior Secondary School, Prashant Vihar, Rohini, Delhi 110085 Delhi, India
 - Percentage: 87%




PROJECTS

- **Project: AetherMind** February 2025
Tools: Python, NLP (Transformer/BERT-based models), Docker, Kubernetes, Redis, PostgreSQL, JWT, AES Encryption 
 - Built AI-powered mental health support system using transformer-based NLP for intent and risk detection.
 - Implemented rule-based and ML-driven safety mechanisms for crisis risk classification.
 - Developed secure data pipelines with encryption, authentication, and role-based access control.
- **Project: Cloudburst Early Warning and Alarm System** October 2025
Tools: Python, TensorFlow, PyTorch, MQTT, InfluxDB, Raspberry Pi, LoRa, Streamlit 
 - Designed a distributed IoT-based early warning system for cloudburst prediction in hilly and remote regions.
 - Implemented AI/ML-based anomaly detection using ConvLSTM models on multi-sensor weather data streams.
 - Built real-time data ingestion and alert pipelines using MQTT and InfluxDB with multi-channel notifications.
 - Enabled off-grid operation through hybrid power management and redundant communication for high reliability.
- **Project: Real-Time Object Detection Using YOLO** November 2024
Tools: Python, OpenCV, YOLOv3, NumPy 
 - Built a real-time object detection system using YOLOv3 for live webcam/video streams.
 - Integrated YOLOv3 with OpenCV to detect multiple object classes with >90 percent confidence.
 - Implemented bounding boxes, class labels (COCO dataset), and non-maximum suppression (NMS) for accurate and clear detections.
- **Project: AI-Based Face Detection and Recognition System** October 2024
Tools: Python, OpenCV, Haar Cascade, Imgbddings, PostgreSQL, NumPy, PIL, Scikit-learn 
 - Built a face detection and recognition system using Haar Cascade and embedding-based similarity matching.
 - Implemented face cropping, preprocessing, and embedding extraction using Imgbddings.
 - Stored and queried face embeddings in PostgreSQL with similarity search for real-time face identification.

PUBLICATION(S)

- Nalin Sharma, **Decoding Visual Intelligence in Machines: A Comprehensive Review of CNNs**, *Journal of Informatics and Mathematical Sciences*, accepted for publication. 2026

SHORT-TERM COURSES

- **Blockchain Technology and Applications** June 24, 2024 - June 28, 2024
organized by Birla Institute of Technology, Mesra-Ranchi-Noida Campus 
 - Gained foundational understanding of blockchain architecture, cryptographic principles, and consensus mechanisms.
 - Explored real-world blockchain applications in finance, supply chain, and healthcare.
 - Learned basics of smart contracts and hands-on implementation using the Ethereum platform.
- **Blockchain and its Applications** June 2, 2024 - June 17, 2024
organized by University Institute of Engineering & Technology, Chhatrapati Shahu Ji Maharaj University 
 - Built foundational understanding of blockchain technology, decentralized systems, and consensus mechanisms.
 - Studied blockchain networks including Bitcoin and Ethereum, along with smart contract concepts.
 - Analyzed real-world use cases of blockchain across finance, healthcare, and supply chain domains.
- **Research Oriented Technical Writing (ROTW-2024)** November 18, 2024 - November 22, 2024
One week workshop organized by Department of Electrical Engineering, NIT Jamshedpur 
 - Gained hands-on experience with LaTeX, Beamer, and Overleaf for structured technical and research documentation.
 - Learned academic paper writing standards, reference management using Mendeley, and basics of Intellectual Property Rights (IPR).

SKILLS

- **Programming Languages:** Python, C++, SQL, Bash (Basic)
- **Operating Systems:** Linux (Ubuntu/Debian), Windows, WSL
- **Database Systems:** PostgreSQL, MongoDB, MySQL, InfluxDB
- **Cloud and SRE:** AWS Basics, Google Cloud Platform, Docker, Kubernetes, Prometheus (Basic), Grafana (Basic), Monitoring, Alerting, Observability, Incident Response
- **Data Science & Machine Learning:** Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Hugging Face Transformers (BERT, ViT), Transformer-based NLP
- **LLM & NLP:** Prompt Engineering, LLM Evaluation, Intent Classification, Risk Detection, Text Preprocessing, Instruction Tuning, Supervised Fine-Tuning (SFT), RLHF (Basic)
- **Security Concepts:** JWT Authentication, RBAC, AES Encryption, Secure Data Pipelines
- **IoT & Distributed Systems:** Raspberry Pi, LoRa, MQTT, Edge Computing, Sensor Data Processing
- **DevOps & Version Control:** Git, GitHub
- **Web Scraping & Automation:** Scrapy, Selenium
- **Computer Vision:** OpenCV, PIL, Haar Cascade, Object Detection (YOLO), Image Segmentation, Face Detection Recognition, Medical Image Analysis
- **Research Engineering:** Data Preprocessing, Feature Engineering, Model Training, Model Validation, Real-time Inference Pipelines, Anomaly Detection, System Design

PROFESSIONAL MEMBERSHIPS

- **IEEE Society**, Membership ID: 100576650 2024 - 2026
- **IEEE Computer Society**, Membership ID: 100576650 2024 - 2026

CERTIFICATIONS

- **Cisco Networking Academy: Introduction to Data Science** December 2025
- **Infosys: Introduction to Data Science** August 2024
- **Infosys: Introduction to Natural Language Processing** August 2024
- **Infosys: Introduction to Artificial Intelligence** August 2024
- **Infosys: Introduction to Deep Learning** August 2024
- **Infosys: Computer Vision 101** August 2024
- **Infosys: Introduction to Robotic Process Automation** August 2024
- **Infosys: Time Management** August 2024
- **Infosys: Artificial Intelligence Primer Certification** August 2024
- **Infosys: Email Writing Skills** August 2024
- **Infosys: High Impact Presentations** August 2024
- **Infosys: Introduction to OpenAI GPT Models** August 2024
- **Infosys: OpenAI Generative Pre-trained Transformer 3 (GPT-3) for Developers** August 2024
- **Infosys: Generative Models for Developers** August 2024
- **Infosys: Deep Learning for Developers** August 2024
- **Infosys: Agile Scrum in Practice** August 2024
- **Infosys: Principles of Generative AI Certification** August 2024

ADDITIONAL INFORMATION

Languages: English (Read, Write, Speak), Hindi (Read, Write, Speak)

Interests: Artificial Intelligence and Machine Learning, Computer Vision and Image Processing, Natural Language Processing, Cloud Computing and Data Analysis