

RACHIT SINGH

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OBJECTIVE

Computer Science graduate from MIET Meerut with hands-on experience in full-stack development, machine learning, and deep learning for computer vision. Seeking a software engineering or AI/ML role where I can contribute to building scalable, intelligent systems that deliver real-world impact.

EDUCATION

Meerut Institute of Engineering and Technology (MIET) <i>B.Tech, Computer Science Engineering</i> Relevant Coursework: Data Structures & Algorithms, Machine Learning, Database Management Systems, Computer Networks	2022 – 2026 Meerut, India
All Saints School <i>Intermediate (CBSE – PCM)</i>	2020 – 2022

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, HTML/CSS, SQL
Frameworks & Libraries: React.js, Next.js, Node.js, FastAPI, TensorFlow, Keras, OpenCV
Deep Learning & CV: CNN, U-Net, Transformer Architectures, Transfer Learning
Data Science: Pandas, NumPy, Scikit-Learn, Matplotlib, Tableau
Databases & APIs: MySQL, MongoDB, Google Analytics API, Facebook Ads API
Tools & DevOps: Git, Docker, Redis, Celery, VS Code, Google Colab, Arduino IDE

EXPERIENCE

Software Development Intern <i>PhysiNovaLab Pvt Ltd</i> - Built responsive UI modules for a full-stack vending machine platform in Next.js 14 (App Router), leveraging SSR and dynamic routing to cut page load times across inventory and transaction views. - Integrated Keycloak OAuth 2.0 / OIDC authentication with protected route guards and secure session and token management across the entire application. - Consumed REST APIs from a Java Spring Boot backend, surfacing PostgreSQL data models as real-time inventory and transaction management dashboards.	Feb 2026 – Apr 2026 Remote — Bangalore, India
Open Market SEO Specialist <i>Novoguard LLC (Verified Care)</i> - Own organic search strategy for a clinic discovery and appointment booking platform, conducting keyword research, competitor benchmarking, and SERP gap analysis across the US healthcare open market. - Executed on-page and technical SEO — metadata optimization, LocalBusiness schema markup, sitemap and internal linking improvements — to strengthen indexation and visibility of 500+ location-based clinic listing pages. - Partnered with engineering to improve crawlability and Core Web Vitals on server-rendered pages, and tracked organic performance via Google Search Console and Google Analytics to guide content strategy.	Nov 2025 – Present Remote — Sheridan, WY, USA

PROJECTS

Satellite Image Segmentation <i>Python, TensorFlow, Google Colab</i> - Developed a terrain classification system leveraging CNN and U-Net deep learning architectures for satellite imagery analysis, achieving 92% accuracy across diverse geographical regions. - Built an automated preprocessing and inference pipeline incorporating data augmentation and transfer learning for robust and generalizable model performance.	View Project
InterviewForge — AI Avatar Interview Platform <i>Next.js, TypeScript, FastAPI, PostgreSQL, Docker</i> - Built a real-time AI mock interview platform for software engineers featuring an animated AI avatar interviewer with voice interaction, powered by Whisper speech-to-text and ElevenLabs text-to-speech. - Engineered an adaptive LLM-driven question engine covering DSA, system design, and behavioral rounds, with a WebSocket-based session layer and Celery + Redis workers for non-blocking audio processing. - Implemented an in-browser Monaco code editor backed by a secure Docker sandbox (isolated containers with CPU, memory, and network restrictions) and LLM-based rubric scoring with post-session analytics and replay.	View Project
Prospera AI <i>Next.js, Gemini API, Tailwind CSS</i> - Built an AI-powered career counseling platform featuring intelligent recommendation algorithms and a personalized chatbot powered by the Gemini API. - Architected the system for high concurrency, supporting 1,000+ simultaneous users via Next.js server-side rendering, with an intuitive UI optimized for student career exploration.	View Project

RESEARCH

Satellite Imagery Environmental Monitoring - Co-authoring a research paper on multi-sensor satellite image analysis using a hybrid CNN-Transformer-LSTM framework for environmental monitoring; responsibilities span model design, preprocessing pipeline development, and IEEE-formatted manuscript preparation. - Collaborating with peers (Megha Sharma, Abhishek Verma, Rachit Sharma) and faculty supervisor at MIET Meerut.	Ongoing — MIET Meerut
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CERTIFICATIONS

MongoDB University — CRUD Operations & Advanced Schema Design
Coursera (Google) — Tools of the Trade: Linux and SQL