Anurag Pathak

Phone - +91 7471125132
Email –
anuragpathak2005@gmail.com
Links – LinkedIn, GitHub
Known Languages – English, Hindi, Marathi, Japanese(Basic)

Full-stack AI/ML & Web GIS developer creating high-performance applications using Flask, Django, React, Leaflet, and Cesium ion. Skilled in embedding ML-driven spatial workflows into scalable interfaces. Built solutions for NDVI/NDWI, flood analysis, NetCDF automation, and 3D geospatial dashboards.

EXPERIENCE

Maharashtra Remote Sensing Application Centre (MRSAC), Nagpur— *Geospatial & AI/ML Intern*

April 2025 – May 2025

- **Remote Sensing & Geospatial Analytics Execution:** Performed end-to-end satellite data processing using Sentinel-1 and Sentinel-2 imagery, generating NDVI, NDWI, and SAR-based flood depth models with 95%+ analytical accuracy for real-world geospatial decisions.
- **Automated Geospatial Data Pipelines:** Built preprocessing workflows for NetCDF, GeoTIFF, Shapefiles, and GeoJSON, reducing manual data handling time by 70% through automated format conversions and batch processing scripts.
- **Spatial Database & Terrain Modeling:** Developed spatial databases and coordinate-referencing workflows for disaster mapping and terrain analysis, enabling 40% faster geospatial query performance and improving dataset interoperability across teams.
- **Open-Source GIS System Modernization:** Leveraged QGIS, GDAL, and Sentinel Hub APIs to streamline geospatial analytics, improving processing efficiency by 3× and enabling scalable, open-source–driven GIS infrastructures.

ABsynergy, Nagpur – Web Development Intern

June 2025 – September 2025

- **Modern Web Development & Performance Optimization:** Engineered Web GIS solutions using Leaflet, Cesium ion, and GeoServer, integrating 3D terrain visualization, elevation profiling, and multi-layer overlays with sub-2-second rendering for large spatial datasets.
- **AI/ML-Integrated Insights:** Developed AI/ML components to solve data-centric geospatial challenges, building interactive dashboards and web interfaces that improved insight delivery and visualiz ation quality for 100+ analytical outputs.
- **Full-Stack Web Platforms & Portfolio Tools:** Built high-performance web dashboards and portfolio management modules to present AI/ML-generated geospatial outputs, integrating modern front-end frameworks and GIS visualization tools to deliver real-time, actionable insights.

EDUCATION

Somalwar Ramdaspeth, Nagpur
12th Standard
Grade: 84.5% with Distinction

Shri Ramdeobaba College of Engineer and Management, Nagpur
B.tech in Computer Science(AI/ML) – August 2023 – 2027
CGPA: 9.01

SKILLS

Languages:
Python, Kotlin, JavaScript/TypeScript, React JS, Django, Flask, Streamlit

Web & App Development
Full-Stack Development, REST APIs, Web GIS Development, Android Development, Responsive Dashboards, Visualization Interfaces

AI/ML & Data Science Skills
TensorFlow, Scikit-learn, Computer Vision, NLP, NumPy, Pandas, Statistical Modeling, Dimensional Modeling, Data Preprocessing

Geospatial Technologies
Leaflet, Cesium ion, GeoServer, QGIS, GDAL, Sentinel Hub, GeoTIFF/NetCDF/Shapefile/GeoJSON workflows

Tools & Platforms
Git, VS Code, Linux, Google Drive API, Cohere Command R+, Elevation & 3D Mapping APIs

PROJECTS

● **CogniPrep – AI Learning Platform:**
Engineered a full-stack AI platform using React, TypeScript, Flask, and Cohere Command R+, converting academic PDFs into 100% structured flashcards, summaries, quizzes, and Q&A modules using schema-first AI workflows—boosting study efficiency for users by over 60%.

● **NetCDF-to-CSV Automation Desktop Suite:**
Built a cross-platform desktop application made using React and ML automating NetCDF → CSV conversion with 95% reduction in manual preprocessing time, now deployed at MRSAC Nagpur and used daily in 100+ satellite data workflows.

● **3D Web Geo Portal for Temple Mapping:**
Developed an enterprise-grade Web Geo Portal CAD visualization, Cesium ion, and GeoServer—delivering Google Earth Pro–level 3D analytics with 40% faster rendering for large spatial datasets.

● **Android Field Survey App:**
Created a production-level Android survey app with GeoJSON geofencing, GeoPDF import, and automated multimedia syncing to Google Drive—reducing on-ground survey time by 50% and improving data accuracy across 200+ field entries

CERTIFICATIONS

IBM - Python for Data Science, AI & Development
Google- Data Analysis with R Programming