

BHARAT ORAON

Urban Planning | Geospatial Analytics | Public Technology

Vijayawada, India

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Profile

Final-year **Bachelor of Planning** student at the School of Planning & Architecture, Vijayawada, with applied experience in **urban governance, geospatial data science, transport systems, and public-sector technology**. Worked on government-sponsored projects, spatial analytics platforms, and climate research, translating complex urban datasets into actionable insights for planning and policy in developing cities. Builds full-stack GeoAI platforms using FastAPI, React, Next.js, and PostGIS, integrating satellite imagery, entropy-weighted composite indices, and interactive web mapping for equity and infrastructure analysis.

Education

Bachelor of Planning (B.Plan)

School of Planning & Architecture, Vijayawada

2022 – July 2026

CGPA: 7.14

Key areas: Urban Governance, Transport Planning, GIS & Spatial Analysis, Urban Utilities, Development Planning

Experience

Public Technology Fellow (Selected)

Build for Bharat Fellowship – Bharat Digital

Jan 2026 – Jun 2026

- Selected from over 9,500 applicants for a national fellowship focused on deploying technology within government systems.
- To provide technical assistance to a government department on public digital infrastructure and governance.

Public Relations Secretary

Student Council, SPA Vijayawada

Feb 2025 – March 2026

- Led institutional communication and outreach for the student body.
- Organized and hosted a National-level Inter-SPA Meet (2025).

Co-Founder | Spatial & Urban Analytics

Buildsoc (buildsoc.in)

Nov 2024 – Present

Vijayawada / Remote

- Co-founded an urban-tech and policy studio delivering spatial analytics and decision-support systems for planning and governance used by municipal and research partners across multiple Indian cities.
- Led development of GIS- and AI-enabled workflows for infrastructure planning, spatial equity analysis, and regional intelligence, reducing manual analysis time and enabling faster scenario testing for planners.

- Built end-to-end spatial data pipelines using Python, Google Earth Engine, PostGIS, CARTO, and interactive web-mapping tools; developed and deployed full-stack platforms with FastAPI, React, Next.js, and MapLibre GL.

GIS Integration Intern (MoHUA-Sponsored Project)

City Future Lab (IIT Kharagpur)
Kharagpur, West Bengal

May 2025 – Jul 2025

- Contributed to a Ministry of Housing and Urban Affairs supported project on urban mobility and digital platforms.
- Developed a full-stack WebGIS system enabling CRUD operations for spatial datasets using Python (GeoPandas), PHP, PostgreSQL/PostGIS, and Leaflet, supporting multi-user access and streamlining updates to transport and land-use layers.
- Improved bike-share rebalancing and bus scheduling visualization tools to support operational planning decisions.

Research Intern | Urban Climate & GIS

OpenCity.in (Oorvani Foundation)
Bengaluru / Remote

May 2025 – Jul 2025

- Conducted urban heat and climate vulnerability analysis using satellite imagery and spatial indicators.
- Processed and analyzed remote-sensing datasets using Google Earth Engine, Python, and JavaScript.
- Authored three peer-reviewed articles published on OpenCity.in on urban heat, land-use change, and climate impacts in Indian cities.

Urban Planning Intern

Patna Municipal Corporation
Patna, Bihar

May 2024 – Jul 2024

- Supported planning and regulatory functions within a large Urban Local Body.
- Worked on building bye-laws, development regulations, and smart city initiatives.

Flagship Projects (Selected)

Urban Equity Mapping Platform – Hyderabad | Live

- Built a full-stack GIS platform scoring all 145 GHMC wards on a composite Urban Equity Index (UEI) across access, opportunity, environment, and governance domains using entropy weighting, K-Means clustering, and Moran's I spatial autocorrelation; deployed with FastAPI + PostgreSQL/PostGIS backend and Next.js + Mapbox GL JS frontend.

Equicity AI – Urban Infrastructure Risk Assessment | Live

- Developed a GeoAI platform integrating Google Earth Engine satellite indices (NDVI, NDWI, built-up density) with Scikit-learn risk models to assess urban utility vulnerability; interactive risk map served via FastAPI with a React + Leaflet frontend.

C-MARKS – Road Cut Management System | Live

- Designed and deployed a civic-tech platform digitizing road cutting permissions in Chennai with end-to-end spatial workflows; built on Node.js + Express + PostgreSQL/PostGIS with JWT-based multi-role authentication and Google Street View virtual inspection.

Karur Logistics Suitability Dashboard | Live

- Built a multi-criteria spatial suitability model for logistics hub site selection in Karur district using Python (GeoPandas, Folium, Pandas), scoring municipalities across freight corridor access, road density, depot proximity, and industrial density.

Chennai Transfer Friction Index – Thesis Research

- Quantified and mapped transfer friction across Chennai's multimodal transit network (rail, MRT, MRTS, bus), computing TFI scores from pedestrian distance, level changes, signage, and modal connectivity to identify priority interchange intervention zones.

Leadership & Activities

- Overall Coordinator, Club-iO (Technical Club), SPA Vijayawada
- Delegate, Harvard Project for Asian and International Relations (USA and Thailand)

Skills

Geospatial & Remote Sensing: QGIS, ArcGIS Pro, Landsat, Sentinel-2, Google Earth Engine (GEE), CARTO

Programming & Data Science: Python (Pandas, GeoPandas, NumPy, Folium, Scikit-learn), R, SQL, TensorFlow

Web Development: React, Next.js, SvelteKit, Node.js, Express.js, FastAPI, Streamlit, Vite

Web Mapping & Visualization: Mapbox GL JS, MapLibre GL, Leaflet.js, Kepler.gl, D3.js, Turf.js

AI Systems: LLM Engineering, Agentic Systems, GeoAI Pipelines

Databases & Spatial Systems: PostgreSQL/PostGIS, Spatial SQL, Vector Databases, REST APIs

Urban Planning & Policy: Governance, Land Use Planning, Transport Planning, Housing, Municipal Finance, Spatial Analytics

Certifications (Selected)

- Business Analytics – Tutorialspoint
- Summer Analytics – IIT Guwahati
- Urban Land-Use and Transportation Planning – IIT Kharagpur (NPTEL)
- Computer Science for Web Programming – Harvard University

Honors

- Certificate of Distinction – TERI GO4Youth Olympiad
- Certificate of Merit – Indian Olympiad Qualifier in Mathematics (IOQM)