Bhagya Sri Chintakula

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Education

University of Leeds, MSc Urban Data Science and Analytics

Sept 2023 - Dec 2024

- GPA: Merit [Link]
- Coursework: Creative coding for Urban Problems, Data Collection and Analysis, Analyzing Cities, Analytics for Urban Policy, Data Science for Urban Systems, Transport Data Science, Programming for Data Science.

Indian Institute of Technology Roorkee, Master of Urban and Rural Planning

July 2019 - Sept 2021

- GPA: 8.8/10, Awarded an institute assistantship by MHRD, India. [Link]
- Coursework: Socio-Economics, Demography and Quantitative Techniques, Environment Impact Assessment, Planning Studio, Sustainable Infrastructure Planning, Ecology and Sustainable Development.

Jawaharlal Nehru Technological University Kakinada, **Bachelor of Technology in Civil Engineering**

Sept 2014 - June 2018

- Score: 78.5% [Link]
- **Coursework:** Surveying Field work, Building Planning & Drawing, Water Resources Engineering, Environmental Engineering, GIS Tools and Techniques, Remote Sensing and GIS Applications, and GIS and CAD Lab.

Skills Summary

Programming Languages: Python, R, SQL, HTML, CSS, JavaScript.

Tools: ArcGIS, QGIS, AutoCAD Map 3D, Field Maps, QField, Survey123, Power BI, Tableau, Microsoft Excel, Microsoft Word, PowerPoint, LaTeX, PostgreSQL, PostGIS, Google Earth Pro, Google Earth Engine.

Data Analysis & Visualization: Data capture, Data Wrangling, Data Mining, Dashboard Creation, Data Visualization, Machine Learning, Geostatistics, Sentiment Analysis, Spatial and Temporal Analysis.

Research Skills: Research Design (Qualitative, Quantitative, Mixed Methods), Survey Development (Survey123, Field Maps), Data Collection, Statistical & Spatial Analysis, Data Handling, Data Protection & Information Security, Reproducible & Transparent Research Practices.

Soft Skills: Interdisciplinary Teamwork, Stakeholder Communication, Research Coordination, Academic Integrity, Time Management, Multi-tasking, Communication (Verbal & Written).

Research Experience

Urban Data Analyst - Researcher, Urban Analytics & GeoAI, Remote.

Jan 2025 - Present

- Researching on geospatial tools, Python, Java and R packages to leverage creative coding techniques for analyzing complex urban data. Collaborating with researchers to **build a web platform featuring 70+ geospatial packages** for urban analysis.
- Developed an **interactive Streamlit accessibility dashboard** to assess the building-level access to essential amenities in **Bristol**, promoting 20-minute walkable neighborhoods. [Link].
- Tree Mapping using deep learning model [Link]: Prepared a detailed tree information dataset using SAMGeo, Segment Anything Model 2 (SAM 2), and GIS tools for 18,797 trees in Sheffield using satellite imagery, NDVI, and nDSM data.

Research Scholar - Infrastructure Planning Lab - IITR, India.

May 2020 - Sept 2021

- Studied social, economic, and environmental data of Visakhapatnam using **30 sustainable mobility indicators** to evaluate the Bus Rapid Transit System (BRTS) impact and designed strategies to enhance green transport.
- Conducted topographic, land use, and socio-economic surveys using QField and Survey123, and scrutinized both primary and secondary data to identify priority areas for vehicle control zones, bus stop locations, and pedestrian-friendly infrastructure, promoting sustainable mobility in Visakhapatnam.
- Prepared Environmental Statements for the Flood Resilient Plan of Patna, Water Infrastructure analysis, and the Environmental Impact Assessment of Haridwar City, to streamline data-driven decision-making in urban planning.

Work Experience

Teaching Assistant, Teaching Personnel - Leeds, United Kingdom.

Feb 2024 - Present

- Enhanced classroom engagement through interactive teaching methods and facilitated learning across diverse subjects, demonstrating strong competence in academic mentoring, problem-solving, and organizational skills.
- Applied formative assessment techniques and maintained detailed student performance records to monitor progress, and ensured timely intervention.

Urban Planner, Ananad Associates - Kakinada, India.

Sept 2021 - Sept 2023

- Designed, analysed, and maintained social, economic and environmental data using ArcGIS, QGIS, and AutoCAD to guide strategic planning, land readjustment, environmental conservation, and infrastructure projects.
- Coordinated with metropolitan, environmental and local authorities and developed interactive dashboards, web applications enhancing sustainability of **4+ infrastructure projects**.
- Collaborated with government agencies, NGOs, and local communities to support sustainable strategies that **resulted in 30% reduction in the risk of urban floods**, improvement of urban greenery, and access to green spaces.

Assistant Civil Engineer, SR Constructions & Solutions - India.

June 2018 – July 2019

- Identified **15 pollution hotspots and vulnerable areas** in Kakinada Smart City, and improved wastewater management, tree planting, green infrastructure and sustainable agriculture strategies to promote eco-friendly tourism.
- Integrated advanced GIS techniques to estimate the impact of local policies, infrastructure projects by scenario analysis and multi criteria analysis that enhanced project **efficiency by 20%**.

Projects- Portfolio

MSc Urban Data Science Project [Link].

Spatiotemporal Analysis of Historical Land Use to Estimate the Urban Growth of Evolving Cities.

- Investigated spatiotemporal patterns of land use change in Staten Island from 1984 to 2024 using machine learning techniques and correlated urban growth phases with urban policies.
- Detected **land use changes with 90% precision** using raster classification and image processing techniques. Visualized high risk zones of environmental degradation that require sustainable urban policies to mitigate biodiversity loss.

Data hackathon - Identifying Priority Places for Physical Activity - London [Link].

- Analysed factors influencing physical activity and developed Indoor & Outdoor Physical Activity Indices for London boroughs using spatial, demographic, and behavioural data.
- Grouped indicators into four domains (facilities, accessibility, safety, and walking behaviour), and applied subjective weights to each variable.
- Assessed the spatial patterns at borough level to rank London boroughs by physical activity levels. Identified priority boroughs for increasing physical activity and improving facility access, transport connectivity, and safety based on rank. Master's Dissertation Planning for sustainable mobility for GVMC area [Link].
- Assessed the urban transport system using sustainable transport indicators (environmental, social, and economic), evaluated performance of the Transport system using Level of Service (LoS) benchmarks and Service Level Benchmarks (SLB) guidelines.
- Grouped indicators and variables into social, environmental, and economic domains and generated sustainable transport profiles, using Landsat 8, field survey data, street network, and secondary data.
- Proposed data-driven interventions including street network improvements, vehicular control zones, optimized bus stop locations, and recommended pedestrian and cycling infrastructure routes to enhance sustainable mobility in the city.

Awards and Achievements

- Associate Member, Indian Institute of Town Planners (IITP) and member of the Infrastructure Planning Lab (2020–2022), Indian Institute of Technology Roorkee, India.
- Awarded Institute Assistantship by the Ministry of Human Resource Development (MHRD), Government of India.
- Represented the MURP Environment Team and presented a poster at International Conference on Future Cities 2019.
- Awarded State Merit Scholarship for academic excellence (2015–2018) by the Government of Andhra Pradesh, India.
- Served as Student Coordinator, for the National level technical symposium, SOUDHA 2K18, JNTUK and organized Draftrix challenge and urban design workshops.
- Member of Rotary and Leo Club: Engaged in initiatives like the Rotary Youth Leadership Awards, Go Green program, and environmental protection camps.