

JYOTI

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Professional Summary

Detail-oriented **GIS and Remote Sensing Specialist** with over **5 years** of progressive experience in advanced geospatial analysis, climate data modeling, and environmental project coordination. Proven expertise in leveraging **Google Earth Engine (GEE), QGIS, ArcGIS Pro, and Python** to deliver high-impact spatial insights for climate resilience. Specialized in applying geospatial intelligence to **urban heat mapping, air quality assessments, and climate mitigation strategies** aligned with international development goals.

Technical Skills

Remote Sensing & GIS: QGIS, ArcGIS Pro, ERDAS Imagine, SNAP, PolSAR

Programming & Automation: Google Earth Engine (GEE), Python, QGIS Model Builder, ArcGIS Model Builder, AI Prompt Engineering

Data Management: Spatial Data Validation (QA/QC), Metadata Creation, Geodatabases, Data Analytics Reporting

Specialized Analysis: Urban Heat Island (UHI) Mapping, LST, CMIP5 Climate Projections, Coastal Mapping, Multispectral Analysis

Professional Experience

World Resources Institute, India

April 2024 – Present

Senior Program Associate

Delhi, India

- **Strategic Leadership:** Spearhead cross-functional coordination for GIS-driven air quality initiatives, bridging technical analysis and policy teams to drive climate action.
- **Technical Guidance:** Provide cross-team leadership on advanced Remote Sensing tools, ensuring standardized geospatial methodologies across multi-sectoral environmental projects.
- **Urban Sustainability:** Support leadership in executing waste management strategies to enhance climate mitigation in major urban hubs.

World Resources Institute, India

September 2021 – March 2024

Program Associate

Bengaluru, India

- **Climate Resilience:** Conducted advanced RS/GIS analysis for the Tamil Nadu Heat Mitigation Strategy, directly informing state-level urban climate resilience planning.
- **Policy Integration:** Authored Urban Heat Analysis sections for municipal Climate Action Plans, integrating geospatial insights into official policy recommendations.
- **Climate Modeling:** Processed CMIP5 climate projections and documented spatial trends for four major Indian cities to guide long-term mitigation.
- **Capacity Building:** Led internal training on automating geospatial workflows in GEE, increasing team analytical capacity by streamlining complex data processing.
- **Mentorship:** Mentored Google Summer of Earth Engine interns on satellite imagery validation for coastline extraction.

X, Alphabet (part-time)

July 2021 – March 2025

GIS Analyst

Remote

- **Site Optimization:** Leveraged advanced remote sensing and spatial analysis to identify high-potential regions for product deployment and optimal site selection.
- **Atmospheric Research:** Derived atmospheric visibility metrics from open-source datasets across diverse geographies to support strategic technical planning and site optimization.

International Center for Agricultural Research in Dry Areas (part-time)

March 2021 – June 2021

Climate Analytics Consultant

Remote

- **Climate Data Engineering:** Processed and aggregated CMIP5 NEX-GDDP climate projections using GEE.
- **App Development:** Developed a custom Earth Engine application to enable time-series visualization and export of downscaled climate data.

World Resources Institute, India**August 2020 – August 2021***Consultant**Remote*

- **Geospatial analysis:** Provided essential geospatial and remote sensing support across multiple projects, contributing to spatial data analysis, map production, and environmental research initiatives.

Risk Management Solutions, India**July 2019 – March 2020***Intern**Noida, India*

- **Tool Development:** Built an internal tool for Model Specialists to streamline client query resolution.
- **Feature Extraction:** Designed a semi-automated framework for extracting built-up area characteristics from satellite imagery.

World Resources Institute, India**May 2019 – July 2019***Google Summer of Earth Engine Intern**Bengaluru, India*

- Conducted temporal analysis of Total Suspended Solids (TSS) in the Ganges River using Google Earth Engine, supporting water quality monitoring and environmental reporting.

Education

Terra.do**October, 2025 – January, 2026***Fellow, Climate Change Learning for Action**Online***National Institute of Technology****2018 – 2020***Master of Technology in Remote Sensing and GIS**Surathkal, Karnataka, India***Institute of Engineering Technology****2014 – 2018***Bachelor of Technology in Civil Engineering**Lucknow, Uttar Pradesh, India***Licenses and Certifications**

- Certificate of Completion for PyQGIS Masterclass – SpatialThoughts
- Certificate of Completion for Advanced QGIS – SpatialThoughts
- Certificate of Appreciation for Best Thesis Awards (Kerala Chapter) 2020 – IEEE-GRSS
- Health GIS: Geoinformatics for COVID-19 – IIRS
- SAR for Landcover Applications – NASA
- SAR for Disasters and Hydrological Applications – NASA