Daman Dogra - Geomatics Engineer

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Professional Skills

- Code: **Python, C++**
- Frameworks Libraries: **Geopandas, matplotlib, GDAL, numpy, rasterio, laspy**
- Databases: **PostgreSQL, PostGIS**
- GIS: **FME**, **QGIS, GRASS GIS**
- Tools: **Git** (version control), Currently learning Docker and basic cloud deployment

Education

M.Sc Geomatics, Delft University of Technology   2025 - Present
- Coursework and labs using Python (GeoPandas, GDAL), PostGIS and PostgreSQL for spatial data processing and analysis.

Bachelor of Planning (Urban and Regional Planning), SPA Bhopal - CGPA 8 [Honours]   2018 - 2022

Experience

Project Associate - Civic Design Lab   April 2023 – July 2025
Indian Institute of Technology (IIT) Roorkee, India
Set up and configured [Arches](#) in a local environment; adapted resource models, customized UI layouts, and mapped project datasets to CIDOC-CRM ontology for consistent semantic and geospatial structure.

Teaching Assistant for **'**International Studies in Vernacular Architecture' course   Aug 2023 – Sep 2023
National Programme on Technology Enhanced Learning (NPTEL), India

Junior Urban Planner   Oct 2022 – March 2023
PLADECO Consultants**,** Indore, India
Developed a comprehensive neighbourhood plan, focusing on infrastructure and spatial optimisation.

Associate - Government and Public Sector Advisory   July 2022 – Sep 2022
Nangia & Co LLP, Hazaribagh, India
Developed street vendor plans for urban local bodies

Urban Transport and Green Financing Intern   July 2021 – Aug 2021
Janaagraha - Centre for Citizenship and Democracy, Bengaluru, India
Compiled and analysed datasets to support Sustainable Public Bus Transport Financing (SPBTF) Project.

Projects

A comprehensive GIS-Based toolkit for investigating the Cultural Routes of Bhotiya Tribe in Uttarakhand   2024 - 2025
Funded by the Department of Science and Technology, Government of India   IIT Roorkee
My role involved locally deploying the open access Arches Heritage Inventory and Management System incorporating FAIR data principles to map the cultural routes, and managing ingestion of multi-source spatial datasets into Arches.

3D reconstruction of Endangered Temples of Uttarakhand India using Photogrammetry   2025
Funded by Oxford Brookes University   IIT Roorkee
My contributions included drafting the project proposal, and leading the field team in constructing 3D models using UAV photogrammetry and aerial laser scanning (ALS) methodology, integrating Real-time Kinematics data and processing point clouds for conservation.

Leadership and Activities

National Organisation of Students of Planning (NOSPlan) India   2020 – 2021
Unit Coordinator
Represented 200 students at the National Council and led them to the first runner-up position at the annual convention.

Honours and Awards

Sponsored Thesis Competition   July 2022
National Institute of Urban Affairs (NIUA), Ministry of Housing and Urban Affairs, Government of India
Received a grant of 600 Euros to support my research.

Publications

Published research on geospatial data interoperability and cultural-route digitization (book chapter + journal article) and conference presentations in Turkey and India.