



Rodrigo Cedeno, PhD

Postdoctoral Researcher

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I. Degrees and Diplomas

2024 (3 years)	PhD. Geomatics Engineering. <i>Politecnico di Milano (Italy)</i>
2021 (2 years)	MSc. Geoinformatics Engineering. <i>Politecnico di Milano (Italy)</i>
2022 (2 years)	MSc. Environmental and Land Engineering. <i>Politecnico di Torino (Italy)</i>
2019 (2 years)	Alta Scuola Politecnica. <i>Politecnico di Milano & Politecnico di Torino (Italy)</i>
2016 (1 year)	Data Science & Machine Learning. <i>ITAM (Mexico)</i>
2015 (1 year)	Design For Six Sigma, Green Belt. <i>ASI Consulting Group - Shin Taguchi (USA)</i>
2012 (4.5 years)	BSc. Mechatronics Engineering. <i>Instituto Tecnológico y de Estudios Superiores de Monterrey -ITESM (Mexico)</i>

II. Skills

Languages:

Spanish	Mother Tongue
English	Advanced (TOEFL IBT 104)
Italian	Advanced (C1)
Swedish	Basic (A1)

Programming:

Python	SQL
Javascript	
R	
Flutter	

Software:

QGIS	MS Office
ArcGIS	
Linux	
Tableau	

III. Technical Expertise & Business Impact

- **Data Science & Machine Learning** – Predictive models and analytics pipelines to extract meaningful insights from complex datasets.
- **Python Programming & Automation** – Designing scalable, efficient code for data processing, analysis, and visualization.
- **Geomatics & Earth Observation** – Transforming satellite imagery, geospatial data, and remote sensing outputs into valuable business intelligence.
- **Big Data Processing** – Handling large-scale datasets using cloud platforms, geospatial databases, and distributed computing frameworks.
- **End-to-End Data Workflow** – Collecting, cleaning, and transforming raw data into actionable insights for decision-making.
- **Business-Oriented Analytics** – Translating technical results into strategic recommendations for stakeholders.

IV. Professional Experience (9 Years)

2024 - Current	e-GEOS & Politecnico di Milano – GEOLab Postdoctoral Researcher - NO ₂ Atmospheric Pollution Monitoring using Earth Observation and Machine Learning - Open Data Cube Specialist for Earth Observation data management
	FIAT Chrysler Automobiles – Virtual Analysis/Product Engineering Chassis Virtual Analysis Engineer - Vehicle program lead (Jeep Compass) for the vehicle dynamics virtual analysis and simulation - Mexico and USA chassis team management for Jeep Compass analysis - Six Sigma Mexico Product Engineering projects coordination
2016 – 2019	FIAT Chrysler Automobiles – Virtual Analysis/Product Engineering Vehicle Crash and Analysis Engineer - Project harmonisation responsible for implementing film analysis in FCA Italy - Six Sigma Mexico Virtual Analysis projects coordination - Vehicle crash tests analysis in 2D and 3D
2013 – 2016	
2011 – 2012	FIAT Chrysler Automobiles Intern - Supplier Quality intern - Chassis Product Engineering intern

V. Academic Experience

2024-2025	Professor assistant: Geospatial Processing course at Politecnico di Milano
2022-2024	Professor assistant: Topography course at Politecnico di Milano
2021-2022	Professor assistant: Positioning and Control Techniques course at Politecnico di Milano

VI. Complete List of Publications

- 1. Estimating Ground-Level NO₂ Concentrations Using Machine Learning Exclusively with Remote Sensing and ERA5 Data: The Mexico City Case Study**
Published: 2024-09-07
<https://doi.org/10.3390/rs16173320>
- 2. QGIS And Open Data Cube Applications For Local Climate Zones Analysis Leveraging Prisma Hyperspectral Satellite Data**
Published: 2023-12-13
<https://doi.org/10.3390/ijgi12030107>
- 3. Estimating Daily NO₂ Ground Level Concentrations Using Sentinel-5P and Ground Sensor Meteorological Measurements.**
Published: 2023-03-04
<https://doi.org/10.5194/isprs-archives-xxlviii-1-w2-2023-111-2023>
- 4. Collaborative Validation Of User-Contributed Data Using a Geospatial Blockchain Approach: The Simile Case Study.**
Published: 2022-08-05
<https://doi.org/10.5194/isprs-archives-XXLVIII-4-W1-2022-89-2022>
- 5. Towards geospatial blockchain: A review of research on blockchain technology applied to geospatial data**
Published: 2022-06-11
<https://doi.org/10.5194/agile-giss-3-71-2022>
- 6. Geospatial Blockchain: review of decentralized geospatial data sharing systems**
Published: 2022-06-10
<https://doi.org/10.5194/agile-giss-3-29-2022>
- 7. Open Data Cube Application To User-Generated Geodata: Visitors Turnout Investigation In The Insubria Natural Parks**
Published: 2022-06-01
<https://doi.org/10.5194/isprs-archives-xxliii-b4-2022-267-2022>
- 8. Enabling Air Quality Monitoring With The Open Data Cube: Implementation For Sentinel-5p And Ground Sensor Observations**
Published: 2021-08-19
<https://doi.org/10.5194/isprs-archives-xxlvi-4-w2-2021-31-2021>
- 9. Assessment of sentinel-5P performance for ground-level air quality monitoring: Preparatory experiments over the Covid-19 lockdown period**
Published: 2020-11-18
<https://doi.org/10.5194/isprs-archives-xxliv-3-w1-2020-111-2020>