

## Jesús Eduardo Paredes Zarco

### GIS DEVELOPER

*"As a Geoinformatics professional with extensive experience in the governmental sector, I specialize in spatial analysis, problem-solving, and process automation to enhance workflow efficiency. My expertise encompasses the development of territorial planning tools, utilizing numerical analysis, interactive mapping, and web development. Additionally, I have contributed to significant academic publications relevant to the state of Hidalgo. I am actively seeking a role that allows me to drive innovation and make a positive impact within the organization while streamlining processes for optimal efficiency."*

#### Education

**UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO (UNAM)**

Bachelor of Earth Sciences

Faculty of Sciences

CDMX

2018

Degree by work experience Report: "Methodology Proposal for the Trend Projection Scenario in the Urban Development and Territorial Management Plan for Huichapan"

#### Professional Experience

##### INABISA

Pachuca, Hidalgo State, México

Specialized Technician in GIS and Territorial Ordering

Mar 2018 – July 2020

I focused on **Cartography Elaboration**, involving drafting and decision-making for **Territorial Planning Instruments**. I excelled in **Scenario Generation** using MATLAB, conducted Compliance Reviews for **urban development** terms, and developed **Interactive Cartography** with ArcGIS Online. I also provided Technical Consultancy for **Municipal Development Plans**.

##### MINERAL DEL CHICO CITY COUNCIL, HIDALGO

Mineral del Chico, Hidalgo State, México

Planning and Urban Development Director

July 2020 – Aug 2021

I oversaw various key initiatives, including the **Web Platform Development** for promoting **tourist attractions**. My role extended to **automating planning tasks** across all city council areas, crafting essential Planning Instruments, and devising performance **Indicators** to measure the attainment of our objectives. Furthermore, I maintained vital connections as a Liaison with influential figures in the fields of Science and Technology.

##### INFOTEC | Mexican Government

Tlalpan, Mexico City. (Remote)

SIG Developer

September 2021 – ago 2022

I held a leadership role in **Cartographic Project Management** overseeing a dedicated team. My responsibilities encompassed the Management and **Processing of geospatial data**, as well as the **Front-end Development** of interactive cartography. Notable achievements included the development of the front-end and **interactive cartography** for the National Atlas of Indigenous People of Mexico, among other impactful projects.

##### HIDALGO STATE GOVERNMENT

Head of GIS Development Department

Sep 2022 – currently

My role involved Managing and Executing Government Systems integrated with interactive cartography, facilitating data-driven decision-making through Multivariate Data Analysis. Noteworthy projects included the development of Hidalgo's System of Municipal Performance Indicators, the Properties and Infrastructure Interactive Cartography for Hidalgo State's Government, and the 3D Interactive Cartography for Work Mobility in the ZMVM region.

## Academic distinctions and achievements

-STATE YOUTH AWARD 2020, HIDALGO | SCIENCE AND TECHNOLOGY

-Co-author in the following academic articles published in international journals:

- a) "Prediction and Potential Spatially Explicit Spread of COVID-19 in Mexico's Megacity North Periphery" (Published in Healthcare).
- b) "Detection of SARS-CoV-2 in wastewater northeast of Mexico City: strategy for monitoring and prevalence of COVID-19" (Published in The International Journal of Environmental Research and Public Health)

## Technical skills

**Html and CSS:** Experience in responsive design and layout. Ability to create attractive and functional user interfaces.

**JavaScript:** Interactivity development and dynamism in web applications. Familiarity with Leaflet, Open Layers and Chart JS libraries.

**Python:** Proficiency handling libraries such as NumPy, GeoPandas and Matplotlib. Jupyter Lab's proficiency in data analysis and research.

**PostgreSQL:** Proficiency in the design and administration of PostgreSQL databases.

**QGIS:** Advanced skills performing spatial analysis and cartographic representation. Geostatistics.

**ESRI Products:** Familiarity with ArcGIS software and other ESRI products. Advanced skills performing spatial analysis and cartographic representation. Geostatistics.

## Additional information

**Language:** Native Spanish. C1 English.

**Personal skills:** Results-oriented strategic thinking. Capacity for analysis and abstraction.

**Professional interests:** Computational geointelligence. Geospatial data science. Project management.

**Hobbies:** Musical composition. Guitar playing. Gaming Hardware.

**Place of residence:** Pachuca, Hidalgo State, México. *Availability to change residence.*

## Contact and Personal Information

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