

Ibrahim Mohammed

GIS web Developer & Cartographer

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Zagazig, Egypt

18th July 1992

Education:

B.A. In Geography specialty in Cartography

(June 2009 – September 2013)

Faculty of Arts, Department of Geography, University of Zagazig, Egypt

Work Experience:

GIS web developer & cartographer

(2014 – present)

Remotely & on-site (Full time – Project based)

Positions:

Geospatial engineer at NorthSystems Oman

(2019 – 2022)

- Managing and providing general geospatial consultancy, demos and solution presentations.
- Providing different GIS analysis operations for spatial analysis, Data Management and interoperability solutions.
- Sohar sea port & free-zone development project including Esri ArcGIS enterprise on premises installation and development geohub for the port services.
- Ekhtar ardak, ministry of housing & urban planning gateway for land random selection distribution UI/UX design.

GIS web developer at Island Research & Education Initiative (iREI)

(2017 – 2019) - (2022 – 2023)

A 3 phases project Building the Digital Atlas of Micronesia as a public facing website, as a source of maps and geospatial information for the Federated States of Micronesia. Providing over 600 maps, printable and interactive, charts, downloadable datasets related to the natural and human environment of Micronesian islands.

Full stack web developer & Cartography projects:

(2014 – 2023)

- **Maptoolkit**, Cartography consultation, designing and refining vector-tiles basemap services.
- **Clean Land Capital (CLC)**, web spatial analysis dashboard and back office tool for renewable energy business.
- **Realty Dynamics App, LLC**, Dashboard for viewing, exploring and purchasing geospatial data for state of florida.
- **Farcloser Travel**, web application for discovering & booking multi day tours, closing the gap between travelers and operators.
- **Indie projects for individuals or one-time collaboration projects:**
 - **SafeHome organization**, compiling and story maps designing of the USA crime statistical data.
 - **Adisla retirement center**, Data visualization & cartography for the UN World Humanitarian Summit, using story mapping to emphasize different world problems such as disease, poverty, conflicts.
 - **Florida justice center**, providing data analysis and map production services.

Qualifications:

Programming skills

Fullstack web development:

- Building RESTFUL services and APIs with:
- Typescript, React, NextJS and Svelte and light experience with Vue & NuxtJS.
- Nodejs – Bun runtime.
- PostgreSQL, SQLite, Firebase, supabase and GraphQL
- Handy experience with Git, Docker and cloud services Gcloud, AWS and Azure.

General purpose languages:

- Go
 - Building robust APIs with REST, gRPC.
 - Microservices for concurrency and scalable solutions.
- Python
 - ArcGIS python scripting and Working with notebooks.
 - Data processing libraries such as pandas, lonboard and geemap for geospatial analytics.

Open source stack and data formats i work with:

- MaplibreGL – DeckGL - Tufjs - D3 -DuckDB – Leaflet
- Tippecanoe – Vector-tiles – Pmtiles - GeoArrow – GeoParquet

Technical skills

- Mastered proficiency: QGIS and Esri ArcGIS/Pro, with experience with spatial analysis. geoprocessing, model builder, ArcPy and map production.
- ArcGIS Enterprise, Experience builder configuration and data publishing strategies.
- Geostatistical analysis with regression, spatial auto-correlation and hotspot analysis.
- General raster data processing, georeferencing, change detection & map algebra.
- SQL spatial database management with PostgreSQL, PostGIS and DuckDb.
- Mapbox studio.
- Vector-tiles implementation and styling specs for designing base-maps.
- Openstreetmap data extraction and open source routing, geocoding solutions.
- Familiarity with Adobe Illustrator, Adobe Photoshop and blender.
- General knowledge of UI/UX design with figma.

General skills

- Strong searching, problem solving and fast self learner.
- Deep understanding of theoretical and applied geography concepts both physical and human geography, sociology & history.
- Proficiency in stock and financial markets technical analysis.