# MOHAMED AYMEN FARHAT

#### CONTACT

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#### **WORK EXPERIENCE**

# GIS Analyst: "City of Sarasota" April 2022 to present.

- Automated attribute table calculations and symbology adjustments using Arcade code for improved data visualization and input efficiency in web maps and field maps.
- Developed custom ArcPro ribbon tools using Python to empower GIS
  users in identifying and rectifying data errors such as missing data,
  incorrect geometry, and improper insertion, as well as streamlining data
  editing processes like batch scale shifting and value swapping.
- Created a program that interfaces with the database to monitor field data operations by sending MMS, web text messages, and interactive symbology changes to alert data collectors about errors, providing multiple reminders in case of oversight, and notifying office operators of changes for immediate action.
- Conducted an evaluation of PcSwimm data utilized in modeling the city network, identifying potential issues or errors, and effectively communicating concerns, while initiating the development of workflows to update model data from GIS sources.
- Employed advanced scripting techniques to analyze datasets, ensuring high-quality control and data integrity.
- Developed (SOPs) for record drawing organization, orchestrating collaboration among multiple departmental personnel and establishing a seamless integration with the GIS system."

# GIS Specialist: "ARCADIS" February 2021 to March 2022.

- Provide analytical and consulting support for linear referencing, Highway Performance Monitoring System (HPMS) and data creation/migration projects to Louisiana Departments of Transportation.
- Analyze datasets using advanced linear referencing systems network, including centerlines, routes, and calibration points.
- Developing Data control quality checks and geoprocessing control quality for the validation of data conversion/creation processes.
- Managing GIS data through editing and quality assurance best practices.
- Designing and developing geoprocessing analysis for a range of functions to model highway needs report using python scripting.
- Automate the creation of Needs using coding report that detect roadway deficiencies, provide recommended improvement and determine cost estimate.

# GIS Analyst: "New Mexico State University. (Facilities and Services Dep.)" March 2019 – October 2019

- Creates, compiles, integrates, digitizes, and updates map data from different sources.
- Maintains GIS base maps and fundamental layers.
- Performs quality control of data, which includes spatial alignment, attribute checks, topology validation, and other quality control measures to ensure accuracy.
- Customization of GIS software to meet department needs using ESRI configurable solutions such as ArcGIS, Survey 123, Arc Collector, Operations Dashboard, Web App Builder.
- Creating script tools with Python using ArcPy libraries.
- Develops and implements standards for data input and maintenance, map production, field data collection.
- Data extraction from management system that uses Oracle/SQL server to create reports and to compare with other data source.
- Provides training and support for staff.

# GIS Analyst: "New Mexico State University. (Animal and Range Science Dep.)" April 2018-March 2019

- Modeling evapotranspiration and drought using remote sensing data for INFEWS project.
- Quantification of the energy balance using models such as SEBAL that require satellite imagery and meteorological data. (MODIS, PRISM....)



- Manual and SOP elaboration.
- GIS layers creation (Hydro, vegetation, Transportation, etc.) and maintaining existing layers for the GIS database.

GIS Analyst: "GEOMAP-IMAGIS/ 1st Spatial"

#### February 2014-December 2016

- Develop, manage, and maintain Geographic Information Systems (GIS) resources.
- Train staff in the use of GIS and IT resources and data management to enable desktop GIS production, enhance data accessibility, and Improve data auality.
- GIS database manipulation, analysis, and extraction using ESRI ArcGIS software, geoprocessing tools, SQL, and Python custom scripts.
- Perform implementation processing and quality assurance/control (Topology, Model builder, SQL query and python/VBA scripting...)

Agronomist: "Espace Vert"

## June 2013-Decembe 2013

- Determine agronomy needs, create solutions, and build long term relationships with customers that will generate sales of seed, fertilizer ag chemicals and agricultural equipment.
- Keep current on agronomic products, trends, problems, and challenges to make educated recommendations to producers.
- Provide technical support in agricultural products, including specific product knowledge related to plant nutrition and specific crop needs.

#### **EDUCATION**

#### New Mexico State University. (NMSU)

August 2018- to present.

Master's degree in water science and management.

## University of Cagliari. (UniCa)

May 2016

SWAT model training organized by the WADISMAR project, Cagliari, Italy. financed by the European Union.

## National Engineering School of Tunis. (ENIT).

2011-2013

Professional master's degree in Geographic Information System (GEOMATICS).

#### Higher Institute of Agricultural Science of Chott Meriem (ISA)

2006-2011

National Diploma of Horticultural Engineering Systems.

#### **PROFESSIONAL SKILLS**

IT development: Python.

**WEB:** ArcGIS online, Portal, 123 Survey, Field Maps.

Geographic Information System: ESRI ArcGIS Products, Quantium GIS, GV SIG.

Optical and Remote Sensing: MATLAB (notion), PCI Geomatica.

Conception Methods: Star UML.

Data bases: PostGre/PostGis, SQL.

## LANGUAGE

Arabic: Native English: Fluent French: Fluent



