Mohammed Nasser

"What we consider a fact is just an approximation of the mind to fill gaps" - Michio Kaku

Personal Information

Birth Date	1/5/1993
Full Name	Mohammed Mahmood Abdulwahab Nasser
Email	momaabna@gmail.com
Nationality	Yemeni

Education

2019 2022, *Master in Geomatics Engineering*, Erciyes University, Kayseri, Turkey.
Excellent

2012 2017, *Bachelor(honor) in Surveying Engineering*, University Of Khartoum, Khartoum.
Excellent

Experience

Professional

Aug 2023 Feb 2024 , *Software Project Manager* , Qatra Maa Company - Tamimi Group , Saudi Arabia.
On-site

Jun 2022 Jun 2023 , *Full-time Backend Developer* , Advanced Computer & Telecommunications Services (ACTS) Company, Khartoum, Sudan.
Remote

Jun 2021 May 2022, *Part-time Geospatial Data Analyst* , Advanced Computer & Telecommunications Services (ACTS) Company, Khartoum, Sudan.
Remote

Dec 2017 Sep 2019, *Full-time GIS Developer* , Advanced Computer & Telecommunications Services (ACTS) Company, Khartoum, Sudan.
On-site

2017 2018, *Part-time Teaching Assistant* , Surveying Engineering Department, Faculty of Engineering ,University Of Khartoum.
On-site

Volunteering

2015 **2016**, *Head Of Cultural Department Of the Yemeni Student Union in Sudan*, Yemeni Student Union In Sudan, Khartoum.
(1 Year)

02/2017 **05/2017**, *Chairman of the Projects Committee*, Surveying Engineering Department committee EW 2017, Khartoum.

Training and Courses

13/12/2014 **24/01/2015**, *Professional Training in Automation (Classic Control - PLC Basic And Advanced Application - Scada)*, Jelecom, Khartoum.
Excellent

17/8/2015 **1/9/2015**, *Course in MicroControllers Basic Application*, Training And Self-Assessment Department-Sudan University of Science and Technology, Khartoum.
Excellent

19/02/2019 **28/02/2019**, *Closed Circuit TV (CCTV)*, New Horizon, Khartoum.

16/04/2017 **29/04/2017**, *Course In Machine Learning*, IEEE Sudan, Khartoum.

19/01/2017 **02/02/2017**, *Hydrological Modelling Using HEC-HMS*, ETCO Training and Human Development Center, Khartoum.
Good

14/04/2020 **05/05/2020**, *Satellite Remote Sensing for Agricultural Applications*, NASA's Applied Remote Sensing Training Program (ARSET), Online.

Events and Conferences

- XI.Turkish National Photogrammetry and Remote Sensing Union Technical Symposium (TUFUAB2022), 2022.
- Workshop in Cloud Computing IEEE Sudan Khartoum, 2015
- 2019 International Conference on Computer, Control, Electrical, and Electronics Engineering (ICCCEEE). IEEE, 2019.
- 2018 International Conference on Computer, Control, Electrical, and Electronics Engineering (ICCCEEE). IEEE, 2018.

Published Works

- Zakarya Al-Shaebi, Fatma Uysal Ciloglu, **Mohammed Nasser**, Mehmet Kahraman, Omer Aydin, Staphylococcus Aureus-Related antibiotic resistance detection using synergy of Surface-Enhanced Raman spectroscopy and deep learning, Biomedical Signal Processing and Control, Volume 91, 2024
- Al-Hammadi, Husam, **Nasser, Mohammed** , Koc, Ebubekir , "Artificial Alzheimer's EEG Dataset Generation Using Generative Adversarial Networks", International Journal of Advances in Science, Engineering and Technology(IJASEAT) (2023)
- Al-Shaebi, Zakarya, Fatma Uysal Ciloglu, **Mohammed Nasser**, and Omer Aydin. "Highly Accurate Identification of Bacteria's Antibiotic Resistance Based on Raman Spectroscopy and U-Net Deep Learning Algorithms." ACS omega (2022).

 +967 730628649 • momaabna@gmail.com
 momaabna.github.io • momaabna

o **Nasser, Mohammed**, Atasever,Ümit Haluk. "Estimation of Initial Parameters for 3D Similarity Transformation with Evolutionary Search Algorithms" XI.Turkish National Photogrammetry and Remote Sensing Union Technical Symposium (TUFUAB2022), 2022.

o Al-Mujtaba, Mohammed, **Nasser, Mohammed**, et al. "In Efficiency of New Horizontal Barcoded Staff Coding and Automatic Leveling Measurement." 2019 International Conference on Computer, Control, Electrical, and Electronics Engineering (ICCCEEE). IEEE, 2019.

o **Nasser, Mohammed**. "Automatic Road Digitizing of Segmented Aerial Images for Urban Areas Based on K-means and Hough Transformation." 2018 International Conference on Computer, Control, Electrical, and Electronics Engineering (ICCCEEE). IEEE, 2018.

Languages

Arabic	Native
English	Advanced Level
Turkish	C 2

Computer Skills

AI and Data Analysis Skills

Python	Numpy, Pandas, Scipy, Sklearn, Tensorflow, Keras, Pytorch, ONNX

Image Processing and Computer Vision Programming Skills

Python OpenCV, C++ OpenCV, Matlab

Geo-spatial data analysis and web mapping

Python	GEE, Geopandas, Folium, ArcPy, pyQGIS, GDAL, Rasterio
Javascript	GEE, OpenLayers,Leaflet

Web Development Skills

Front-End	HTML, CSS, Bootstrap, Tailwind, Javascript, React.js
Back-End	PHP and Laravel, Python Flask, Nest.js, ASP.NET Core, Redis
Deployment	Linux Config, Docker, Nginx, Cloud-flare

Other Programming Skills

Languages	C++, Python
Database	SQL, Mongodb, MySQL,PostgreSQL
GUI	Python PyQt5, Visual Basic.NET
Embeded Sys.	MicroController, Arduino, Rasperry Pi
Math. Env.	Matlab, Octave

Other Computer Skills

Windows	Batch Scripting
Linux	Bash Scripting, Server Management
Softwares	Autocad 2D and 3D, ArcGIS, QGIS,Surfer, Photoscan,Erdas Imagine, SNAP

Interests

Artificial Intelligence and Neural Networks
Modeling, Automation, and Optimization
Geospatial Data Analysis and GIS Development
Photogrammetry and Remote Sensing
Computer Vision

Thesis and Open Source Contribution

Thesis

o Road Extraction from Satellite Imagery using Convolutional Neural Network and Optimization Techniques.
  MasterThesis
o Evaluation Of The Georeferencing Quality Of Landsat 8 Over Khartoum State
  BachelorThesis

Open Sources

o QGPT Agent: QGIS Plugin utilizes LLM to automate geospatial processes.

o SISR: Simplifying Satellite image super-resolution project.

o Deepness SISR: Adding Satellite image super-resolution feature to QGIS Plugin.

o Segmentor: GUI to simplify using Segment Anything Model by Meta.

o Average Path Length Similarity (APLS) Plugin for QGIS Software.

o Vehicle Counter and Classifier GUI Software.

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🌐 momaabna.github.io   •   ⊙ momaabna