SEYED AMIR MUHAMMAD QURESHI

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Google Scholar Profile ◇ GeoMundus 2025

SUMMARY

Erasmus Mundus Master's student in Geospatial Technologies focusing on GeoAI, generative AI, and Earth science applications. Collaborating with the United Nations on synthetic satellite imagery generation. Brings a strong background in research and teaching, with a focus on developing better methodologies and integrating interdisciplinary approaches across geoscience and data science.

EDUCATION

Erasmus Mundus Master's in Geospatial Technologies   Sep 2024 - Mar 2026

Universitat Jaume I (Spain)

University of Münster (Germany)

NOVA IMS Information Management School (Portugal)

M.Sc. Thesis (Ongoing): Generating High-Resolution Synthetic Satellite Imagery for Fictitious Country Simulations with Diffusion Models

In collaboration with: The United Nations Global Service Centre (UNSGC)

Supervisors: Dr. Jose Francisco Ramos (Universitat Jaume I), Prof. Dr. Edzer Pebesma (University of Münster), Prof. Dr. Mauro Castelli (NOVA IMS)

B.Sc. in Geomatics Engineering   Jan 2019 - May 2023

University of Zanjan

Overall GPA: 17.89/20 (3.68/4)

Rank: 1st in class

B.Sc. Thesis: Evaluation of Ground-Water Quality using GIS and MCDM methods - Developing a GIS-based Web-Application

EXPERIENCE

Digital Image Processing Teaching Assistant   Jan 2023 - May 2023 (One semester)

University of Zanjan   Zanjan, Iran

· Image processing filters
· Image processing applications
· Computer vision

Skills: Image Processing in MATLAB and Python, Data Visualization, and Computer Vision

Geometric Geodesy and Map Projection Teaching Assistant   Sep 2022 - May 2023 (Two semesters)

University of Zanjan   Zanjan, Iran

· MATLAB programming exercises
· Convert geographic data to other coordinate systems, dimensions, etc., and visualize them
· Position computations on ellipsoidal surfaces and map projections computations

Skills: Matlab, Data Visualization, and Scientific Computation

Theory of Errors Teaching Assistant   Sep 2022 - Jan 2023 (One semester)

University of Zanjan   Zanjan, Iran

- Illustrate the practical concepts in MATLAB
- Explain statistical concepts and their application in geomatics
- Hold office hours with students
  skills: MATLAB, Statistical Analysis, , and Scientific Computation

Least Squares Adjustment Computations Teaching Assistant
Sep 2022 - Jan 2023 (One semester)
University of Zanjan
Zanjan, Iran

- Adjustment of horizontal geodetic networks
- Geodetic network design and pre-analysis
- Post-adjustment data analysis and reliability evaluation

- Hold office hours with students
  Skills: Matlab, Geodetic Network Design, Statistics, and Scientific Computation

Basics of Photogrammetry and Operation Teaching Assistant
Jan 2021 - Jun 2022 (Three semesters)
University of Zanjan
Zanjan, Iran

- Check students' exams and grading them
- Assist with the guided project in PHOTOMOD software
- Hold office hours with students
  Skills: PHOTOMOD, Applied Photogrammetry, MATLAB, and Scientific Computation

Cadastre Intern
Jul 2021 - Sep 2021
National Water and Sewerage Company
Rasht, Iran

- Maintain and categorize old files
- Preparation of digital maps from old photogrammetric images
- Add and match old land documents to the company's local database

PUBLICATIONS

M. Baki, S.M. Ghavami, **S.A.M. Qureshi**, and O Ghaffari (2024), A three-step modification of the DRASTIC model using spatial multi criteria decision making methods to assess groundwater vulnerability, Groundwater for Sustainable Development, 101277 https://doi.org/10.1016/j.gsd.2024.101277

S.A.M. Qureshi and S.M. Ghavami (2024), AquMADE: A GIS-based Web Application to Assess Groundwater Quality by Introducing a Risk-Based Irrigation Water Quality Index (RB-IWQI), Environmental Modelling and Software, 106009. https://doi.org/10.1016/j.envsoft.2024.106009

CERTIFICATIONS

Getting Started with CyberGIS
Nov 2022
University of Illinois at Urbana-Champaign

Spatial Data Science and Applications
Oct 2021
Yonsei University

Geographic Information Systems (GIS) Specialization
Sep 2021
University of California, Davis

Introduction to FME Form   Nov 2024 con terra España Climate Change AI Summer School   Sep 2024 Climate Change AI More on LinkedIn

HONORS AND AWARDS

Top Academic Student Award, University of Zanjan   2023
Rank 1st in Undergraduate Class, University of Zanjan   2023
Best Student Association in the Competition Section, University of Zanjan   2023
3rd Place in 8th National GeoLeague Competition, K. N. Toosi University of Technology   2023
1st in University's Second Chess Tournament, University of Zanjan   2022

TECHNICAL STRENGTHS

Data Science	Numpy, Pandas, Scikit-learn, TensorFlow, Keras
GIS	ArcGIS, QGIS, Web-GIS, Mapbox, GeoPandas, GDAL, Rasterio
Remote Sensing	Google Earth Engine, SANP, ENVI
Image Processing	OpenCV, Pillow, MATLAB
Photogrammetry	Agisoft Metashape, PHOTOMOD
Web Development	HTML, CSS, JavaScript, Node.js, React
Programming Languages	Python, R, MATLAB, JavaScript, C#
Databases	MySQL, PostgreSQL, PostGIS, Microsoft SQL
Visualization	Tableau, Matplotlib, Plotly, PowerBI
CAD	Civi3D, AutoCAD

LANGUAGES

English	Full Professional Proficiency (Erasmus Mundus Master's taught in English)
Persian	Native
Azerbaijani	Native
Spanish	Intermediate

EXTRACURRICULAR ACTIVITIES

Program Team Leader and Scrum Master, GeoMundus Conference 17th Edition	Apr 2025 - Oct 2025
Member of Geomatics Student ScientificAssociation, University of Zanjan	Sep 2022 - May 2023
Instructor of a two-day workshop on geodetic GNSS data measurements and processing	Jun 2022