



# Iosif Nikolaos Al Sheikh Aly

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[nikos.alsehyaly@outlook.com](mailto:nikos.alsehyaly@outlook.com) | **Website:** <https://arcg.is/1XOnC12> | **Website:**

<https://github.com/nick5818/Spatial-Analysis> | **LinkedIn:** [www.linkedin.com/in/nikos-al-sheikh-aly](https://www.linkedin.com/in/nikos-al-sheikh-aly) |

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## ● ABOUT ME

I am dedicated to a path of ongoing personal and professional development, seeking new challenges and opportunities for growth.

## ● WORK EXPERIENCE

 **FOUNDATION OF RESEARCH AND TECHNOLOGY (FORTH) – HERAKLEION, GREECE**

**Business or Sector** Other service activities | **Department** <https://rslab.gr/> | **Email** [nikos.alsehyaly@iacm.forth.gr](mailto:nikos.alsehyaly@iacm.forth.gr) |

**Website** <https://www.forth.gr/en/home/>

**RESEARCH ASSOCIATE – 01/04/2025 – CURRENT**

- Contributing to EU-funded projects on sustainable, net-zero urban environments as part of the [CLMS Cities](#) initiative.
- Acquiring CLMS datasets via APIs and performing raster analysis in Python to support urban climate and land surface studies.
- Specializing in GIS, remote sensing, AI/ML, and spatial data processing for advanced geospatial solutions.
- Analyzing land surface temperature (LST) using Landsat and ECOSTRESS satellite data, thermal drone imagery, and in situ temperature measurements.
- Processing thermal drone imagery in Agisoft Metashape and applying radiometric corrections to DJI drone data.
- Running atmospheric simulations with MODTRAN to improve LST retrieval accuracy.
- Conducting Python-based analysis of ground LST measurements for calibration and validation purposes.
- Organizing and performing fieldwork in densely populated urban areas, including deploying instruments, managing drone flight operations, and ensuring high-quality data collection.

 **SLU – UMEA, SWEDEN**

**FIELD WORK – 01/05/2024 – 10/06/2024**

- Conducted field survey on the wider area of Krycklan (Sweden) in collaboration with the SLU and Dr. Lindberg Eva.
- Utilized GNSS receiver (Emlid Reach RS2+) to detect the accurate location of deadwood in the forest of Krycklan.
- Accuracy assessment of tree positions.

 **TEDX – CHANIA, GREECE**

**TEDX CHANIA SPONSOR'S TEAM – 13/09/2023 – 01/04/2024**

- Communicating with companies to negotiate a sponsorship for future TEDx events in the area.
- Arranging meetings with the rest of the team to organize the next necessary steps for the event.
- Contacting CEOs of companies via e-mail, phone or in person to finalize the agreement.
- Successfully contributed and co-organized the TEDxChania Salon 2023 in December
- Assisted in various tasks such as setting the place for the event and ensuring the smooth flow during the event.
- Ongoing work for TEDxChania 2024.

 **ARCHIPELAGOS INSTITUTE OF MARINE CONSERVATION – SAMOS, GREECE**

**RESEARCH ASSISTANT – 01/07/2022 – 10/10/2022**

- Research Assistant in the GIS Department
- Supervised projects regarding marine conservation, Remote Sensing and Object Detection in the field of GIS.
- Leading boat surveys in the Aegean Sea for sea mapping regarding the biodiversity and endangered species (seagrass-Posidonea, coralligenous).

- Managed day-to-day office operations, including maintenance of the bases of the Institute.
- Organised interns regarding their accommodation, nutrition in the Institute's bases and safety on surveys.
- Arranged remote meetings with the project managers, to ensure the progress of the ongoing projects.
- Gave general basic training for canoe-kayak, including training for kayak-surveying (mapping the ocean with a sonar mounted on the kayaks).
- Assisted in workshops regarding QGIS and RStudio.

 **CHELMOS-VOURAIKOS UNESCO GEOPARK** – PATRAS, GREECE

**GIS TECHNICIAN (INTERNSHIP)** – 01/06/2021 – 30/09/2021

- Digitalization of the geological map (geological formations, natural landscape and isolines) of Chelmos-Vouraikos Geopark.
- 3D representation of Chelmos-Vouraikos Geopark

## ● **EDUCATION AND TRAINING**

20/10/2022 – CURRENT Chania, Greece

**MASTER'S DEGREE IN GEOINFORMATION IN ENVIRONMENTAL MANAGEMENT** Mediterranean Agronomic Institute of Chania (MAICh)

- Developing machine learning algorithms to detect and classify deadwood in forests, using laser-scanned data.
- Conducted fieldwork in the forests of Krycklan (Sweden) to assess the accuracy of algorithm.
- Thesis conducted in collaboration with the SLU and Dr. Lindberg Eva

**Website** <https://www.iamc.ciheam.org/> | **Field of study** Environmental sciences , Forestry |

**Thesis** Detection of standing and lying deadwood in boreal forests from airborne laser scanning data

10/10/2015 – 01/07/2022 Patras, Greece

**BACHELOR'S DEGREE IN EARTH SCIENCES / GEOLOGY** University of Patras

**Website** <https://www.upatras.gr/> | **Field of study** Natural sciences, mathematics and statistics |

**Thesis** Paleoenviromental Study of Samples 59 to 61m, 70,50 to 75,50m, 81 to 83,10m and 90,50 to 92,50m, from the core MΠ7 (Cyprus) with the use of Ostracods

## ● **LANGUAGE SKILLS**

Mother tongue(s): **GREEK**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● **SKILLS**

### **GIS / Remote Sensing**

Remote Sensing | Geographical Informational Systems (GIS) | GIS Skills- Map processing, spatial analysis | ArcGIS, ESRI, QGIS, EPANET, Google Earth Pro | ArcGIS and ERDAS IMAGINE | Spatial Data | MODTRAN | Agisoft

### **Programming**

Python Language - Basic knowledge | Advanced Data Analysis (Python) | R Language (RStudio) | lidR | Google Earth Engine (GEE) / Google Earth Pro | Python for gis | LiDAR Remote Sensing | Data Visualisation | Shapely | Numpy | Matplotlib | GDAL | Fiona | Rasterio | Geopandas | SQL(MySQL PostgreSQL) | PostgreGIS

### **Soft Skills**

Project Management | Critical Thinking | Team Sprit | Hard working | Management Skills | Continuous Learning | Self-motivated | communication | surveying | Proposal Writing

## Machine Learning Algorithms

SVM (Support Vector Machines) | Machine Learning: Decision tree, Random Forests, k-nearest neighbors | Logistic Regression | Linear Discriminant Analysis | Linear Regression | K-Means | Template Matching

## PROJECTS

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01/06/2021 – CURRENT

### GIS Projects

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My GIS portfolio and my github account from all the academic and personal projects so far.

Links <https://arcg.is/1XOnC12> | <https://github.com/nick5818/Spatial-Analysis>

## VOLUNTEERING

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20/08/2024 – 13/02/2025 Remote

### GIS Analyst (Tomkulak Consortium)

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- Energy Sector
- Assessing suitable areas for windfarm location in Norway (Multicriteria analysis)
- Data collection and validation
- Working with Cloud GIS (Atlas)