

PERSONAL INFORMATION **Michail-Christos Tsoutsos**


 25, Eleftheriou Venizelou Street, Nea Makri, Region of Attica, 19005, Greece

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 michalis.tsoutsos@gmail.com

 Skype name mtsoutsos

Sex Male | Date of Birth 16/01/1992 | Nationality Hellenic

Military Obligations: Completed

 [Michail-Christos Tsoutsos](#)

WORK EXPERIENCE

01/01/2020 –
31/07/2020
and
01/07/2021 –
to present

GIS Analyst and Earth Observation Specialist

BEYOND Centre of EO Research and Satellite Remote Sensing, Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, National Observatory of Athens (IAASARS-NOA)

Main activities and responsibilities:

- Flood and wildfire mapping using GIS and remote sensing applications
- Hazard risk assessment, vulnerability mapping
- Processing of Earth Observation data. Creation of the Burnt Scar Mapping (BSM) of the year 2019 (http://ocean.space.noa.gr/diachronic_bsm/)
- Spatio-temporal management of satellite data using GIS in the context of creating a risk assessment model and literature review of machine learning applications in wildfire risk mapping;
 - Participation at the conference paper: Apostolakis, A., Girtsou, S., Kontoes, C., Papoutsis, I., **Tsoutsos, M.** (2021): "Implementation of a Random Forest Classifier to Examine Wildfire Predictive Modelling in Greece Using Diachronically Collected Fire Occurrence and Fire Mapping Data", Conference: 27th International Conference on MultiMedia Modeling, MMM 2021; Prague; Czech Republic; 22 June 2021 through 24 June 2021 Volume: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) Volume 12573 LNCS, 2021, Pages 318-329: https://link.springer.com/chapter/10.1007/978-3-030-67835-7_27
- Use of GIS software products and Python programming language
- Management of spatial databases and geospatial analysis
- Update of the WebGIS website (<http://webgisCovid19.beyond-eocenter.eu/>), for the daily monitoring of the global spread of the coronavirus-COVID-19, by generating statistics on the number of cases and deaths at global and country level and a Web Map displaying the spatial distribution of COVID-19 at the prefecture level for Greece.

Businesses or sector Research centre

14/09/2020 –
22/04/2021

GIS Analyst

Subdivision of Cartography – Hellenic Military Geographical Service (in the context of my military service)

Main activities and responsibilities:

- Geospatial data management, processing and analysis
- Design and management of spatial databases
- Spatial analysis
- Digitizing of spatial entities
- Data quality control, by performing topological rules for the correctness and completeness of the database and generalization of spatial data
- Creating and editing of annotation. Translation of annotation in the Latin alphabet using the ELOT-743 standard.
- Map composition and design and cartographic processing for the creation of 1:500,000 and 1:250,000 scale maps
- Use of the software ArcGIS and the programming language Python.

Businesses or sector Cartography Organization

01/01/2018 –
30/03/2018

GIS & Remote Sensing project manager

Epsilon International S.A., Technology Resources Engineering & Consulting Group with expertise in: Aerospace, Geoinformatics, Environment and Management.

Main activities and responsibilities:

- Management and implementation of EU scientific research projects in the field of GIS and Satellite Remote Sensing, as well as submission of technical proposals and technical reports

Businesses or sector GIS, Satellite Remote Sensing and Software Development Company

02/02/2017 -
30/10/2017

Telesales representative

Mediatel SA

Main activities and responsibilities:

- Very good organizational and negotiation skills

Businesses or sector Telecommunication Services

01/03/2015 -
30/09/2015

GIS teaching assistant (Erasmus Traineeship-Work Placement)

Department of Geography, Norwegian University of Science and Technology (NTNU), located in Trondheim Kommune, Sør Trøndelag Fylke, Norway (Postal address: Norwegian University of Science and Technology, Department of Geography, NO-7491 Trondheim, Norway. Delivery address: Dragvoll, Building 7, level 4, Website: <https://www.ntnu.edu/geography>, Tel: +47 73 59 19 10, E- mail address: geo@svt.ntnu.no).

Main activities and responsibilities:

- Preparation of knowledge videos that demonstrate with an explanatory way how to apply specific techniques/methods of the "ESRI ArcGIS Desktop". These videos were created using the software "Camtasia" and intend to the students of the Norwegian University of Science and Technology (NTNU) that will use the Geographical Information Systems (G.I.S.) and particularly the software "ESRI ArcGIS Desktop" for the first time. Thus, the videos will be the basic sources of search for the students who need guidance regarding with the implementation of these techniques/methods. Following the creation of the videos, I met a lot of students in order to ascertain that the videos operate efficiently according to their judgment.
- Preparation of the study material of the course "Tools and Techniques in Climate Change Studies". The course was intended to postgraduate students and Ph.D. candidates from varying academic backgrounds from the science of Geography and the science of Geoinformatics. The study material that I created consist of laboratory exercises and explanatory notes for the assessment of the exposure of the Norwegian municipalities to natural hazards and particularly to landslides, floods and storms by creating and mapping indices utilizing GIS and Python programming language for the identifying of the suitable sites for windmill parks with minimum visual impact in the municipality of Trondheim, for the assessment of the solar energy potential in the municipality of Trondheim, for the map design and for the basic terms of the science of Geography and the science of Geoinformatics. As teaching assistant, I supported the teaching of the course by my supervisor Professor Dr. Jan Ketil Rød during the laboratory hours, by assisting the students to understand and implement the content of the laboratory exercises.

Supervisor: Professor Dr. Jan Ketil Rød (Tel: +47 73592772, Email address: jan.rod@ntnu.no)

Businesses or sector University and Research centre

EDUCATION AND TRAINING

04/2021 – to
present

PhD Candidate in Geoinformatics

European Qualifications
Framework: level 8

School of Rural, Surveying and Geoinformatics Engineering, National Technical University of Athens (NTUA), Zografou campus, 9 Iroon Polytechniou Str., Zografos, 15773, Greece. Tel: (+30) 210 772 2724, (+30) 210 772 2781. Email: epal@survey.ntua.gr and adonta@mail.ntua.gr

Scientific fields of PhD dissertation: Geoinformatics and Natural Hazards

10/2016 –
02/2019

Master's Degree in Geoinformatics

European Qualifications
Framework: level 7

School of Rural, Surveying and Geoinformatics Engineering, National Technical University of Athens (NTUA), Zografou campus, 9 Iroon Polytechniou Str., Zografos, 15773, Greece. Tel: (+30) 210 772 2724, (+30) 210 772 2781. Email: epal@survey.ntua.gr και adonta@mail.ntua.gr

Graduation Grade: 8,17/10

Master's Degree Thesis: Spatio-temporal analysis of urban land use patters in a GIS environment: Comparative study of twelve large and medium sized Greek cities. **Grade: 10/10.** Supervisor: Professor Dr. Yorgos N. Photis (yphotis@gmail.com). The thesis has been published at the European Journal of Geography (<https://doi.org/10.48088/ejg.m.mar.11.4.36.63>).

Course modules: Software Development, Geoinformatics, Remote Sensing applications, Geospatial Databases (PostgreSQL), Programming languages (Python, R, C++), Geostatistics, Computational methods in Geoinformatics, Geospatial data acquisition methods: satellite geodesy, photogrammetry, remote sensing and digitization of maps.

10/2010 –
03/2016

Bachelor's Degree in Geography

European Qualifications
Framework: level 6

Department of Geography, University of the Aegean. Postal address: University of the Aegean, Department of Geography, University Hill, 81100 Mytilene, Lesvos, Greece. Tel: (+30) 2251036402, (+30) 2251036432. Email: secr-geo@aegean.gr

Graduation Grade: 8,65/10, Excellent (First-Class Honours)

Bachelor's Degree Thesis: Quality and designation of agri-food products: Recording, mapping and analysis of Protected Geographical Indication (PGI) products in Europe. **Grade: 10/10.** Supervisor: Professor Dr. Athanasios Kizos (akizos@aegean.gr)

Course modules: Programming languages (Python, R, Javascript), Geospatial Databases (PostgreSQL), GIS applications using ArcGIS, QGIS and GRASS GIS, Satellite Remote Sensing, Thematic Cartography, Spatial Planning

PERSONAL SKILLS

Mother tongue	Greek				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken Interaction	Listening	
English	C2: Proficient User	C2: Proficient User	C2: Proficient User	C2: Proficient User	C2: Proficient User
	Levels: A1/A2: Basic user B1/B2: Independent user C1/C2: Proficient user Common European Framework of Reference for Languages				
	Provided upon request:				
	<ul style="list-style-type: none"> First Certificate in English, University of Cambridge (Council of Europe Level B2) since 2007 Letter of Recommendation by Dr. Ekaterini Nikolarea (6937 740249, anikolarea@aegean.gr), who certifies that my level of English is higher than C2; it is EAP, that is, English for Academic Purposes. Research paper written in the English language: Tsoutsos, M.-C., Photis, Y. (2020). Spatial point pattern analysis of urban retail stores: the case of twelve large- and medium-sized Greek cities. <i>European Journal of Geography</i> 11 (4): 036-063. Available at: https://doi.org/10.48088/ejg.m.mar.11.4.36.63 				
Communication skills	<ul style="list-style-type: none"> Very good communication skills acquired in the context of my Master's thesis, where I had to come in contact with the staff of the Department of Planning of the Greek municipalities as well as with the staff of the Greek trade associations and chambers, in order to find out the streets that constitute the municipalities' "Open Mall". My communication skills improved immensely as teaching assistant at the Department of Geography of the NTNU. 				
Organisational / managerial skills	<ul style="list-style-type: none"> Very good organisational / managerial skills acquired in the context of handling varied responsibilities simultaneously at the BEYOND Centre, (IAASARS-NOA) and at the Department of Geography of the NTNU as well as during my undergraduate and postgraduate studies in the context of group projects. 				
Computer skills	<ul style="list-style-type: none"> In the context of my work experience at the BEYOND Centre (IAASARS-NOA) and at the Department of Geography of the NTNU, my volunteering as GIS Analyst at the Hellenic Military Geographical Service (in the context of my military service), my research interests, as well as during the processing of my research exercises in the context of my undergraduate studies at the University of the Aegean and my postgraduate studies at the National Technical University of Athens, I acquired experience in using: <ul style="list-style-type: none"> GIS and Earth Observation software products (ESRI ArcGIS for Desktop, GRASS GIS, QGIS, ERDAS Imagine, Trimble ecognition, ENVI, SNAP) Databases (PostgreSQL/PostGIS, MySQL and Oracle) Programming languages (Python, R, C++, Javascript) Statistical Packages (SPSS) IDE (Pycharm) Servers for sharing geospatial data (Geoserver) Web applications (Jupyter) Office tools (Microsoft Office, LibreOffice) 				
	SELF-ASSESSMENT				
Digital Competence	Information processing	Communication	Content creation	Safety	Problem solving
	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user
	Levels: Basic user - Independent user - Proficient user Digital competences - Self-assessment grid				

ADDITIONAL INFORMATION

 Publications in
Scientific Journals

- Tsoutsos, M.-C., Photis, Y. (2020). **Spatial point pattern analysis of urban retail stores: the case of twelve large- and medium-sized Greek cities**. *European Journal of Geography* 11 (4): 036-063. Available at: <http://www.eurogeographyjournal.eu/showPaper.php?id=16146>

 Conference
Publications and
Research
Presentations

- Apostolakis, A., Girtsou, S., Kontoes, C., Papoutsis, I., Tsoutsos, M. (2021). **“Implementation of a Random Forest Classifier to Examine Wildfire Predictive Modelling in Greece Using Diachronically Collected Fire Occurrence and Fire Mapping Data”**, Conference: 27th International Conference on MultiMedia Modeling, MMM 2021; Prague; Czech Republic; 22 June 2021 through 24 June 2021 Volume: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) Volume 12573 LNCS, 2021, Pages 318-329: https://link.springer.com/chapter/10.1007/978-3-030-67835-7_27
- Tsoutsos, M.-C., Kizos, A. (2021). **“Geography of the Protected Geographical Indication Products (PGI) in Europe”**, research presentation at the Scientific Conference of the Department of Geography of the University of the Aegean on the topic: “Geography in a Changing World”, 2-4 June 2021, Lesvos, Greece. The conference was held online. Conference proceedings have not yet been published. Conference programme (in Greek): <https://geography.aegean.gr/files/uploads/jdim/20210524100514.gr.pdf>
- Tsoutsos, M.-C., Kizos, A. (2020). **“Geography of the Geographical Indication (GI) products (PDO, PGI, GI spirit drinks) that are produced in Greece”**, research presentation at the 11o Panhellenic Conference of Hellenic Society of Geographic Information Systems (HellasGIS), 18-20 November 2020. The conference was held online. Conference proceedings (in Greek): <https://hellasgi.gr/wp-content/uploads/2021/02/%CE%92%CE%99%CE%92%CE%9B%CE%99%CE%9F-%CE%A0%CE%9B%CE%97%CE%A1%CE%97-%CE%9A%CE%95%CE%99%CE%9C%CE%95%CE%9D%CE%91-%CE%95%CE%A1%CE%93%CE%91%CE%A3%CE%99%CE%A9%CE%9D-11o-%CE%A0%CE%91%CE%9D%CE%95%CE%9B%CE%9B%CE%97%CE%9D%CE%99%CE%9F-%CE%A3%CE%A5%CE%9D%CE%95%CE%94%CE%A1%CE%99%CE%9F-1.pdf>
- Tsoutsos, M.-C. (2020). **“Remote Sensing applications for land use/land cover (LULC) mapping: The case of the island of Lesvos”**, scientific poster at the 2o Conference on Remote Sensing and Space Applications in Geosciences and Geohazards, organized by the Committee of Remote Sensing and Space Applications of the Geological Society of Greece, 26 February 2020, National Hellenic Research Foundation, “Leonidas Zervas” amphitheatre, Athens. Conference proceedings (in Greek): http://etde.space.noa.gr/?mdocs-posts=rssa2020_proceedings_final
- Tsoutsos, M.-C., Kizos, A. (2019). **“Spatial distribution of Protected Geographical Indication (PGI) products in Europe and characterization of their production areas”**, research presentation at the 3rd Conference on Geographic Information Systems and Spatial Analysis in Agriculture and the Environment, under the auspices of the Agricultural University of Athens and the Ministry of Rural Development and Food. 11-13 December 2019, Conference Hall of the Agricultural University of Athens, Athens. Conference proceedings (in Greek) can be provided upon request. Conference programme (in Greek): http://gis2019.aua.gr/sites/default/files/attachedfiles/program_v.7_merge.pdf
- Tsoutsos, M.-C., Photis, Y. (2019). **“Alteration of spatial point pattern of land uses: The case of twelve large- and medium-sized Greek cities”**, research presentation at the 12o International Conference of the Hellenic Geographical Society (ICHGS - 2019), 01-04 November 2019, National Technical University of Athens, Athens. Conference proceedings (in Greek): <http://www.hellenicgeosociety.org/el/12th-conference-proceedings>
- Tsoutsos, M.-C., Photis, Y. (2019). **“Comparative study of urban land use change patterns for twelve large- and medium-sized Greek cities”**, research presentation at the 27th Panhellenic ArcGIS Users Meeting, organized by Marathon Data Systems, 31 May 2019, Crowne Plaza Hotel, Athens. Conference proceedings (in Greek): <https://www.marathondata.gr/ekdilwseis/synedria/praktika-synedriwn/praktika-synedriwn-2019/>
- Tsoutsos, M.-C. (2017). **“Polycentric Sustainable Urban Mobility Plans: The case of the Municipality of Marathon”**, research presentation at the conference “Presentation of Innovative Ideas in the science of Rural and Surveying Engineer” in the context of celebrations for the 100 years of the School of Rural and Surveying Engineering at the National Technical University of Athens (NTUA), 12 October 2017, NTUA, Athens. Conference proceedings (in Greek): ημερίδας νέων ερευνητών στην ιστοσελίδα: http://www.survey.ntua.gr/files/secr_announcements/genikes/2017-2018/Praktika_Hmeridas_Newn_Ereynhtwn.pdf

Attending conferences

- Scientific Conference of the Department of Geography of the University of the Aegean on the topic: "Geography in a Changing World", 2-4 June 2021, Lesvos, Greece. The conference was held online.
- 11o Panhellenic Conference of Hellenic Society of Geographic Information Systems (HellasGIs), 18-20 November 2020. The conference was held online.
- 2o Conference on Remote Sensing and Space Applications in Geosciences and Geohazards, organized by the Committee of Remote Sensing and Space Applications of the Geological Society of Greece, 26 February 2020, National Hellenic Research Foundation, "Leonidas Zervas" amphitheatre, Athens.
- 3rd Conference on Geographic Information Systems and Spatial Analysis in Agriculture and the Environment, under the auspices of the Agricultural University of Athens and the Ministry of Rural Development and Food. 11-13 December 2019, Conference Hall of the Agricultural University of Athens, Athens.
- 12o International Conference of the Hellenic Geographical Society (ICHGS - 2019), 01-04 November 2019, National Technical University of Athens, Athens.
- 27th Panhellenic ArcGIS Users Meeting, organized by Marathon Data Systems, 31 May 2019, Crowne Plaza Hotel, Athens
- 10o Panhellenic Conference of Hellenic Society of Geographic Information Systems (HellasGIs), 12-14 Νοεμβρίου 2018, National Technical University of Athens, Athens.
- "Presentation of Innovative Ideas in the science of Rural and Surveying Engineer" in the context of celebrations for the 100 years of the School of Rural and Surveying Engineering at the National Technical University of Athens (NTUA), 12 October 2017, NTUA, Athens.
- "Introduction to "Open Street Map", organized by HellasGIS, School of Rural and Surveying Engineering, National Technical University of Athens (NTUA), 18 May 2017, NTUA, Athens.
- "Medical Geography", Department of Geography, University of the Aegean, 29 November 2013, University Hill, Lesvos, Greece.
- "The science of the Geographical Information Systems, their evolution in Greece and the professional perspectives of Geographers", Department of Geography, University of the Aegean, 05 April 2013, University Hill, Lesvos, Greece.
- "The professional perspectives of Geographers in the Greek labor market", organized by the Geographers' Association of Greece (G.A.G.) in cooperation with the Student Association of the Department of Geography "PITAKOS", 16 November 2012, Department of Geography, University of the Aegean, University Hill, Lesvos, Greece.
- "Islands and Sustainability: Identities Development, Management and Planning", organized by the Network of Insular Universities "Excellence Network Island Territories", ENIT/ "Reseaud" Excellence des Territoires Insulaires", RETI, 19-21 October 2012, Department of Geography, University of the Aegean, University Hill, Lesvos, Greece.
- "Natural Disasters and Environmental Impacts", organized by the Student Association of the Department of Geography "PITAKOS", 06 April 2011, Department of Geography, University of the Aegean, University Hill, Lesvos, Greece.

Honours and awards

- Scholar of the State Scholarships Foundation (IKY in Greek) for my performance during the academic year 2011-2012.
- Scholar of the State Scholarships Foundation (IKY in Greek) for my performance during the academic year 2010-2011.
- Scholar of the European Union for the program "Erasmus Work Placement-Traineeship", upon selection by the University of the Aegean due to my performance at the Department of Geography, in order to live in Norway and work at the Department of Geography of the Norwegian University of Science and Technology (NTNU) for the time period 01/07 – 30/09/2015.
- Scholar of the European Union for the program "Erasmus Work Placement-Traineeship", upon selection by the University of the Aegean due to my performance at the Department of Geography, in order to live in Norway and work at the Department of Geography of the Norwegian University of Science and Technology (NTNU) for the time period 01/03 – 30/06/2015.

Seminars

- "The interview process", organized by the Career Office of the University of the Aegean, 26 November 2014, Department of Marine Sciences, University of the Aegean, University Hill, Lesvos, Greece.
- "How to write a successful Curriculum Vitae, a Covering Letter and a Letter of Recommendation", organized by the Career Office of the University of the Aegean, 26 November 2014, Department of Marine Sciences, University of the Aegean, University Hill, Lesvos, Greece.

Courses

- "Advanced course for mapping techniques based on very high resolution earth observation data, according to international security standards", organized by Planetek Hellas, 6-10 July 2017, Planetek Hellas, 44 Kifissias Avenue, 15126 Maroussi, Athens, Greece. Tel: +30 2152157390.