

EDAH ŠAHINOVIĆ

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SUMMARY

With a completed MSc in Applied Geoinformatics and professional work experience in the field, I possess a robust background in cartography, spatial analysis, remote sensing, streamlining workflows and WebGIS development. Through experience in geospatial engineering, and data management, I developed skills across a spectrum of tools and technologies. My expertise includes Geographic Information Systems integrated with Python scripting, JavaScript for crafting interactive map interfaces, proficiency in spatial databases, and experience in remote sensing applications.

- Over 8 years of experience in GIS, encompassing spatial analysis, cartography, and data visualization.
- Over 3 years of experience in geoinformatics, with a strong focus in GIS, remote sensing, and Python programming, contributing to projects in academia, research, and the tech industry.
- Proficient in ArcGIS and QGIS analysis as well as employing remote sensing techniques to derive actionable insights from spatial data.
- Proficient in employing Python scripting tools for geospatial applications, including automating geospatial workflows and developing WebGIS applications for spatial data analysis and visualization by utilizing libraries such as Geopandas, SQLite, Rasterio, GDAL, Shapely, Matplotlib for geospatial data transformation, processing and analysis. Experienced into integrating geospatial data tools into web applications using frameworks like Streamlit and Flask.
- Managed geospatial data using various protocols and technologies, including RESTful services such as ArcGIS Server and GeoServer, as well as SOAP, and PostGIS for efficient data publishing, storage, and querying.

PROFESSIONAL EXPERIENCE

ESG Chain (via Z_GIS – Department of Geoinformatics)

Salzburg, AU

GIS Developer

Dec 2023 - June 2024

ESG Chain leverages blockchain and AI technologies to enhance sustainable supply chain management, focusing on environmental, social, and governance (ESG) compliance. They cater to organizations worldwide, aiming to streamline ESG initiatives and reporting.

- Part of a pioneering research team within the Geo-social Analytics Lab, focusing on the integration of Big Data, Data Science, and Geographic Information Systems to address Earth Observation topics related to Environmental, Social, and Governance (ESG) frameworks.
- Engaged in defining and applying satellite technology research to explore its potential in enhancing ESG initiatives, with an emphasis on delivering robust scientific methods for data analysis across various sectors.
- Utilized Python scripting to engage in ETL processes and automation of geospatial workflows, including multiple API retrievals and post-processing, contributing to the lab's objective of unlocking value from diverse data sources.

- Utilized JavaScript's OpenLayers to present the retrieved results in a dynamic and interactive manner.

Z_GIS – Department of Geoinformatics

Salzburg, AU

Research Assistant

Oct 2022 - April 2023

The ESSEM project, part of the Geo-social Analytics Lab, focuses on enhancing bike safety and comfort through emotion sensing. It aims to increase cycling safety and comfort, contributing to sustainable, climate-neutral mobility. The project uses biometric data, such as skin temperature and heart rate, to assess safety and comfort perceptions among cyclists in Osnabrück and Ludwigsburg.

- Engaged in the Geo-social Analytics Lab, developing applications using GPS and biometric data to enhance the ambitions of the ESSEM project.
- Created two web applications using Python Streamlit to disseminate the data analysis from wearable sensors by external collaborators.
- Streamlined data transformation, processing, and visualization, incorporating interactive charts and maps.
- Worked in close partnership with a leading professor and team, employing Git for effective project communication and version control.

Checklens

Salzburg, AU

Supply Chain Assistant

Dec 2021 - Oct 2022

A dynamic AI technology company based in Europe, specializing in advanced object recognition and tracking solutions for the retail sector. With a strong team of over 100 experts across Austria and Cyprus, the company specializes in retail checkout processes, making them more efficient, simple, and enjoyable for customers.

- Oversaw end-to-end product logistics, from supplier coordination to retail distribution.
- Led the quality assurance process, from component assembly to final product testing, ensuring all parts met quality standards before dispatch.
- Conducted thorough inventory inspection and maintained the ERP Dolibarr system, ensuring accurate stock levels and efficient warehouse operations.
- Enhanced product performance and customer satisfaction by overseeing the integration of new features into final products, including meticulous testing and documentation processes.

Printmania

Sarajevo, BiH

Data Analyst

June 2020 - Feb 2021

Printmania, established in Sarajevo since 2017, excels in DTG and Flex printing on textiles, catering to local brands, artists, and creatives with a diverse range of custom print services.

- Improved the company's data collection processes, ensuring data consistency.
- Organized and analyzed sales data, providing valuable insights to achieve meeting KPIs, inventory management optimization and procurement processes.

BNpro

Sarajevo, BiH

Cartographer & GIS Technician

May 2019 - May 2020

BNpro is a surveying company specializing in delivering high-quality geodetic and spatial solutions. They offer a wide range of services, including surveying, topographic mapping, aerial photogrammetry, and the provision of surveying equipment.

- Focused on acquiring and digitizing spatial datasets for cartographic design, serving both corporate and government clients.
- Engaged in a broad range of mapping projects, from reference to thematic maps, contributing to the enhancement of geospatial data accuracy and utility.
- Led initiatives for creating travel brochures and maintaining high-quality map outputs, supporting BNpro's goal of delivering top-tier geodetic and spatial solutions across local and national levels.

Gaudi LCC

Sarajevo, BH

Intern

Nov 2017 - Jan 2018

Particularly distinguished in the Meetings Incentives Conferences Exhibitions sector, Gaudi Lufthansa City Center excels in providing comprehensive solutions for a diverse range of travel needs, including the sale of travel documents and airline tickets.

- Participated in designing new and optimizing existing travel arrangements.
- Contributed to the development of customized travel routes, tailoring each itinerary to specific travel arrangements.
- Project proponent and team coordinator in spatial database collection related to planning, development and enhanced informative decision-making processes for travel arrangements.

Freelance

Sarajevo, BH

Cartographer

July 2017 - March 2019

- *Led independent cartographic projects, developing an interactive map for the company's Facebook page, highlighting location points and key information.*
- *Created a tourist map for a travel brochure, showcasing points of interest and our client's location, enhancing visitor engagement.*
- *Initiated the design of a tourist map for city billboard representation, aiming to boost local tourism (project canceled due to funding issues).*

EDUCATION

University of Salzburg, MSc in Applied Geoinformatics

2021 - 2024

University of Sarajevo, BSc in Tourism and Environmental Protection

2013 - 2018

TECHNICAL SKILLS

GIS: ArcMap, ArcGIS Pro, QGIS

ESRI: ArcGIS Dashboards, Insights, Online

Adobe: Illustrator, InDesign

Programming: Python, JavaScript, HTML/CSS, R, Java

Other: Tableau, GitHub, eCognition, pgAdmin 4, Dolibarr, Microsoft Excel, Redmine, Trello, ChatGPT

LANGUAGES

Serbo-Croatian (native), English (Proficient), German (Lower Intermediate)

NOTEWORTHY PROJECTS

[ParcelInsights](#) | Applied Geoinformatics

Salzburg, AU

I3 Project & Master Thesis

March 2023 - Aug 2023

Developed a Jupyter Notebook-based geospatial application to semi-automatically generate comprehensive PDF reports, providing insights on environmental conditions based on a user-requested parcel by providing two key values or by selecting it on an interactive map.

- Leveraged the interactive capabilities of Jupyter Notebook to create a user-friendly interface, enabling users to input parameters, execute data processing workflows, and visualize outputs seamlessly within the notebook environment.
- Utilized open-source technologies, including OGC Web Services and Python libraries (Flask, OWSLib, Requests, Rasterio, Geopandas, ReportLab) to avoid reliance on proprietary software and promote transparency, collaboration, and accessibility.
- Utilized existing and published nonexistent OGC Web Services to facilitate the sharing and accessibility of geospatial data over the internet, allowing service access from any location and eliminating the dependency of possessing spatial datasets locally.
- Employed spatial data processing techniques to derive valuable information from retrieved services, and presenting it in the forms of maps, informative tables and descriptive text reports per environmental condition.

[Residence Selection Suitability Analysis Toolbox](#) | Applied Geoinformatics

Salzburg, AU

Application Development

March 2023 - Aug 2023

Developed an ArcGIS toolbox for a multicriteria spatial analysis method focused on evaluating dwellings in Salzburg based on environmental and service factors.

- Implemented a Python script by leveraging ArcPy for data processing and analysis.
- Purpose in assisting residence seekers and homebuyers in selecting the most suitable dwellings based on personal criteria.
- The tool generates a building layer with features reflecting suitable dwellings based on selected criteria with a suitability score from 1 to 5.

For more projects and detailed information, please visit my website at:

<https://sahinovicedah.com/projects.html>.

CERTIFICATES

EsriAcad: Scripting with Python and R (multiple short intensive courses)

[MOOC: Going Places with Spatial Analysis](#)

[MOOC: Imagery in Action](#)

[Udemy: ArcGIS Desktop for Spatial Analysis](#)

[Python for Beginners](#)