Burhan Sözer

Software Engineer | GIS | MSc

📍 Ankara, Turkey
💻 https://www.burhansozer.com

Profile Summary

Software Developer with 5+ years of experience in developing, maintaining, and optimizing web-based applications. Strong background in spatial data, geoinformatics/GIS, and full-stack development. Proven ability to contribute to international defense and geospatial projects, including NATO AirC2IS. Holds two master's degrees and multiple certifications in GIS, spatial analysis, and software engineering.

Professional Experience

Atos | Software Engineer
October 2022 – Present | Ankara, Turkey

- Actively working on the NATO AirC2IS project.
- Contributed to frontend development using **Angular** and backend services using the **.NET** framework.
- Utilized **ArcGIS Pro**, **ArcGIS Server**, **ArcGIS Portal**, and **ArcGIS JS SDK** for developing geospatial modules.
- Published **.stylx** files and implemented advanced symbol rendering using **CIMSymbol**.
- Integrated NATO's **COREGIS** service into the application infrastructure.
- Developed functionalities for **importing and exporting NVG** files.
- Participated in the development of the **new symbology architecture**, playing a key role in system design.
- Delivered a project acceptance presentation in **the Netherlands** as part of international collaboration efforts.

GEOSYS GIS & Consultancy | Full Stack Developer

March 2022 – September 2022 | Ankara, Turkey

- Developed and maintained web-based GIS applications for **MCBS** and **NEFES** projects.
- Utilized **.NET Core** for backend services and **React** for frontend development.
- Performed regular **bug fixes**, feature improvements, and production support tasks within agile workflows.

Belsis Computer Software Ltd. Co. | Software Developer

April 2021 – February 2022 | Ankara, Turkey

- Worked on **EÜAŞ** and **Web Tapu** projects, providing full-stack development and support.
- Utilized **.NET Core** and **Angular** in the EÜAŞ project for backend and frontend enhancements.
- Used **Node.js** and **Angular** in the Web Tapu project to deliver scalable web-based GIS solutions.
- Responsible for **bug fixing**, performance improvements, and ensuring application stability in both projects.

OdakGIS Computer Software Ltd. Co. | GIS Software Developer

July 2020 – April 2021 | Ankara, Turkey

- Contributed to the development and maintenance of **TADLAB** and **TedPORTAL** projects using **.NET Core** and **Angular**.
- Performed extensive **bug fixing** and optimization across multiple modules.
- Managed and published **WMS** and **WFS** services using **GeoServer**; configured **SLD (Styled Layer Descriptor)** files for custom symbology.
- Utilized **PostGIS** for spatial database management and complex geospatial queries.
- Provided technical support to the **Ministry of Agriculture** on OGC services and to **EPDK** (Energy Market Regulatory Authority) on PostGIS and GeoServer usage.
- Delivered **training sessions on GeoServer** for individuals and corporate clients.

Hacettepe University | Machine Learning Researcher (YÖK 100/2000 Scholarship)

February 2020 – September 2020

- Generated high-resolution orthophotos from aerial imagery through **Trimble Inpho Photogrammetry**
- Developed **Digital Elevation Models (DEM)**, **Digital Surface Models (DSM)**, and **Canopy Height Models** using LiDAR data.

- Produced detailed **land use** and **land cover** maps to support spatial planning and environmental analysis.
- Applied **machine learning algorithms** to classify satellite and orthophoto imagery for geospatial intelligence applications.
- Worked extensively with **Python**, **remote sensing libraries**, and GIS software in a research-oriented environment.

Körfez Engineering Surveying Co. | Geomatics Engineer
June 2017 – September 2017

- Worked on **aerial photogrammetry projects**, focusing on the generation of high-accuracy **orthophotos** for mapping and analysis purposes.
- Identified and marked **tie points** and **ground control points (GCPs)** to support accurate image triangulation and georeferencing.
- Conducted **stereo image interpretation** and supported the production of **topographic base maps**.
- Contributed to quality control processes by validating output accuracy and alignment based on spatial standards.
- Gained hands-on experience with **photogrammetry workflows**, **remote sensing fundamentals**, and large-scale geospatial data handling.

Education

Hacettepe University – MSc, Software Engineering *(2023 – 2024)*
Hacettepe University – MSc, Geomatics Engineering *(2018 – 2020)*
Erciyes University – BSc, Geomatics Engineering *(2011 – 2016)*

Technical Skills

- **GIS Platforms & Tools:**
  ArcGIS Portal, ArcGIS Server, ArcGIS Online, ArcGIS Pro, OpenLayers, ArcGIS JS SDK, PostGIS, QGIS

- **Programming Languages:**
  C#, JavaScript, Python, SQL

- **Frameworks:**
   Angular, .NET, React, Node.js

- **Databases:**
  PostgreSQL (Postgis extension), Microsoft SQL Server, Oracle Spatial

- **Development & DevOps Tools:**
  Git, GitHub, Docker, Visual Studio Code, Postman

- **Other Technical Areas:**
  RESTful API Integration and Development, Clean Code Principles, Software Design Patterns (e.g., MVC, Repository), OGC Standards, Advanced Symbology Implementation (CIMSymbol, .stylx)

Languages

- Turkish (Native)

- English (Full Professional)

- German (Elementary)

Certifications

- Clean Coding | **ATOS** | 2023

  UNSCHE 8575b9b6-5528-42d1-ba5c-0e4bf0700582

- Object-Oriented Design | **ATOS** | 2023

  Unscheduled 92e61cc8-14c0-11e7-92d9-0242c0a80b07

- Angular | **ATOS** | 2022

  Unscheduled 569adb68-903a-4d6d-8c59-abb0b7f2baf2

- GIS, Mapping, and Spatial Analysis | **Coursera** | 2020

  https://www.coursera.org/account/accomplishments/specialization/certificate/2JAZK8AWJVZ5

- Statistics with Python | **Coursera** | 2020

  https://www.coursera.org/account/accomplishments/specialization/ZATBYZ66BKZH

- Speexx English CEFR Level B2.2 | **Speexx** | 2023

  https://portal.speexx.com/certificate/NzA5MTIwMjo6ODI=

Research & Publications

AirC2IS Symbology Technology Change Proposal
Organization: NATO
Date: January 2024
Summary: Proposed a modern symbology architecture transition from legacy Silverlight to ESRI Dictionary symbology within the GIS environment of NATO's AirC2IS project.

Modified AHP Method for Flood Susceptibility Mapping in Ankara
Journal: Harita Dergisi
Date: July 2019
Summary: Applied the Modified Analytical Hierarchy Process (M-AHP) for generating flood susceptibility maps in Ankara, integrating geospatial data and multi-criteria analysis.

Flood Susceptibility Mapping in Ankara Using M-AHP
Event: 17th Turkish Cartographic Scientific and Technical Congress
Date: April 2019
Summary: Presented a technical paper focused on the application of M-AHP for regional flood risk analysis based on topography, land use, and rainfall data.

Preliminary Investigations on Flood Susceptibility Mapping in Ankara Using M-AHP
Conference Proceedings: ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People"
Date: November 2018 | Location: Dehradun, India
Journal: The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. XLII-5
Summary: Co-authored international research exploring the use of M-AHP in flood hazard mapping, integrating satellite imagery and terrain models.

Honors & Awards

Atos Accolade Award
Organization: Atos
Date: 15.12.2023
Description: Recognized for outstanding performance and contribution to the NATO AirC2IS project, particularly in the areas of GIS integration and symbology modernization.

Second Best Poster Presentation
Event: 17th Turkey Surveying, Mapping and Science and Technology Conference
Organization: HKMO
Date: May 2019
Description: Awarded for co-authoring and presenting a high-impact research poster on flood susceptibility mapping in Ankara using the Modified AHP method.

References

Hayal Senyurt
Senior Project Manager
Company: Atos (NATO Project)
E-mail: hayal.senyurt@gmail.com
Linkedin: https://www.linkedin.com/in/hayal-senyurt-61aa663/
Relationship: Worked together on the NATO AirC2IS Project