Sebahattin Gökcen Özden

Software Engineer · Security Researcher · Backend & ML

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SUMMARY

Software engineer and cyber security researcher with hands-on experience in secure backend development, SOC operations and teaching. Completing an MSc in Computer Engineering with thesis research in cyber security. I build backends on ASP.NET Core and PostgreSQL with encryption, post-quantum cryptography and passkey sign-in, and research how federated learning holds up under attack (manuscript under review).

EXPERIENCE

Dec 2025 – Present
Tokat, TR · Part-time

Backend Developer, Security & Production — Tokat Gaziosmanpaşa University · AI & Digital Transformation Office

Core engineer on DPKS, the university's Digital Programme Guide System. A part-time role I gave full-time commitment, from the backend architecture to the release.

- Built the backend architecture on ASP.NET Core and PostgreSQL, then took on the design, the front end and the entire student interface.
- Owned security and cryptography, including post-quantum encryption and passkey sign-in, and built the Güvercin request system.
- Ran testing and production releases on my own, with a code-first design that plans for what comes next.
- Built the design mode for sample questions in course plans.
- Created the logo animation and improved the overall user experience.

10k+ Users served

ASP.NET Core · EF Core · PostgreSQL · Cryptography · Post-quantum cryptography · Passkeys · Security · UX

Feb 2025 – May 2025
Sivas, TR · Full-time

Software Developer & Instructor — Genc Bilgi

Taught IT students in the company's vocational high school programme and contributed to the company's ERP project.

Aug 2024 – Feb 2025
Remote · Internship

Cyber Security Researcher — Siber Vatan · ALTAY Team

Selected for the ALTAY team after a five-stage examination, and trained as a blue-team analyst in a Security Operations Center programme.

- Passed a five-stage selection process to join the team.
- Completed intensive SOC training with the blue-team cyber security unit.
- Researched current security software and threats, and wrote an article analysing the IDF's attack on Lebanon.

Python · C · Malware analysis · Wazuh · Linux · Burp Suite

Jul 2023 – Oct 2023
Adana, TR · Internship

Backend Developer — Novartz Bilişim

Built ShareRider, a BlaBlaCar-style ride-sharing system, from scratch, from the project design and relational database to cross-platform apps.

- Designed the relational database and ran the back-end operations.
- Built cross-platform apps with C#, .NET MAUI and SQL Server, testing thoroughly throughout.
- Added data encryption and managed session handling to harden security.

C# · ASP.NET · .NET MAUI · Blazor · SQL Server · Cryptography

SELECTED PROJECTS

2026
Research · Under review

Fed-MDBSCAN-G — Stress-testing the defences of federated learning.

Research code behind my manuscript, now under review, on benign exclusion and consensus-test limits in heterogeneous federated learning. A simulation and audit framework that runs a density-clustering defence against Krum, FLTrust, FLAME and other baselines under attack, with every table and figure reproducible from a fresh clone.

2,125 Simulated training runs · 21 Tables reproduced byte for byte

Python · PyTorch · scikit-learn · NumPy · SciPy · github.com/Bygokcen/fed-mdbscan-g · Dataset: doi.org/10.5281/zenodo.23048019

2024
NLP · Security

Suspicious Chat Detection — Flagging abusive messages, even when they are misspelled.
An NLP classifier for hate and offensive speech in chat. Messages are spell-corrected with SymSpell, then scored by a Random Forest over bag-of-words features, served through a small Flask web app.
24.8k Labelled messages
Python · scikit-learn · NLTK · TensorFlow · Flask · github.com/Bygokcen/Suspicious_chat_detection

2025
Mobile · Full stack

Yeşil Yol — A community map of accessible places.
A mobile map of places with ramps, accessible toilets and other accessibility features, shown as custom markers on Google Maps. A Flutter app on a Node.js and Express API backed by PostgreSQL with PostGIS, with accounts and place submissions.
Flutter · Node.js · Express · PostgreSQL · PostGIS · Google Maps · github.com/Bygokcen/ye-il_yol

2023
Backend

ShareRider API — The back end of a BlaBlaCar-style ride-sharing app.
Users register, publish a journey between two cities and join other people's trips. An ASP.NET Core Web API with JWT authentication, Entity Framework Core on SQL Server, a repository layer, AutoMapper DTOs and Swagger docs. Built during my internship at Novartz Bilişim.
C# · ASP.NET Core · EF Core · SQL Server · JWT · github.com/Bygokcen/ShareRider_back_end_api

EDUCATION

Sep 2025 – Present
MSc, Computer Engineering — Tokat Gaziosmanpaşa University
Tokat, TR · Thesis research in cyber security.

Sep 2019 – Feb 2025
BSc, Computer Engineering — Adana Alparslan Türkeş Science and Technology University
Adana, TR · GPA 2.89 / 4 · 100% English-taught programme.

Sep 2012 – Sep 2015
BSc, Statistics — Çukurova University
Adana, TR · GPA 3.40 / 4 · Left in the third year.

Sep 2009 – Jun 2011
AAS, Computer Programming and Computer Technology (double major) — Yozgat Bozok University
Yozgat, TR · GPA 3.21 / 4

CERTIFICATIONS

May 2025 — **CyberOps Associate** — Cisco
Mar 2025 — **CCNA: Introduction to Networks** — Cisco
Feb 2025 — **Introduction to Cybersecurity** — Cisco
Jul 2024 — **Siber Vatan Bootcamp 2024** — Siber Vatan · West Black Sea Development Agency
Jun 2012 — **Software and Database Specialist (Microsoft Silver certificate)** — Bilge Adam

SKILLS

Security	SOC operations, Wazuh, Malware analysis, Burp Suite, Metasploit, Network security, Cryptography, Post-quantum cryptography, Passkeys, Linux
Backend & web	ASP.NET Core, Entity Framework, Node.js, Express, Flask, Microservices, React, Git
Data	Data governance, Data quality management, Data modeling, PostgreSQL, SQL Server, MySQL, SQLite, MongoDB
ML & research	PyTorch, scikit-learn, Federated learning, NLP, TensorFlow, Pandas, Data mining, Data analysis
Languages	Python, C#, Java, C++, C, JavaScript, Dart, SQL

LANGUAGES

Turkish — Native · **English** — Advanced

INTERESTS

Sudoku, Chess, IoT devices, Fantasy and science-fiction novels

REFERENCES

Prof. Dr. Onur Saraçoğlu
Vice Rector, Tokat Gaziosmanpaşa University

Akay Ergün
Antalya Region Manager, Hidromek

Akın Tulukcu
Regional Operations Director, Hidromek

Cantekin Güneşer
CEO, Novartz

Uğur Portakaldalı
Senior Software Engineer, Novartz

Contact details available on request.