

Serhat Karaman

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Technical Skills

Programming & Data Analysis: Python, TypeScript, JavaScript, C++, C, C#, Java

Web Development: React, Next.js, FastAPI, .NET Web API, HTML, CSS, Tailwind CSS

Database & Tools: MongoDB, Redis, PostgreSQL, MySQL, Pandas, NumPy, Seaborn, Matplotlib, Scikit-learn

Course Work: Data Science, Automata Theory, Network Security, Signals and Systems, Digital Logic, Data Structures, OOP, Computer Architecture and Organization

Certificates: [Machine Learning Specialization](#) (Supervised Machine Learning, Advanced Learning Algorithms, Unsupervised Machine Learning Recommenders Reinforcement Learning), Miuul Data Science Specialization ([Feature Engineering](#), [Machine Learning](#))

Education

Eastern Mediterranean University

September 2021 – July 2025

Bachelor of Science in Computer Engineering

Famagusta, TRNC

Experience/Projects

Başarsoft

July 2024 – September 2024

Full Stack Development Intern

Ankara, Turkey

- **Engineered a dynamic user interface** for a map-based application using **React** and **TypeScript**
- **Architected** a scalable backend system with **C#** and **.NET Web API**, leveraging **design patterns** like **Unit of Work** and **Generic Repository** to reduce code complexity by **15%**.
- **Deployed** advanced mapping features, such as polygon and point manipulation via **OpenLayers**, improving mapping functionality and **reducing user task time by 20%**.
- Created a real-time data flow architecture using PostgreSQL that ensured consistent updates across platforms.
- Implemented authentication and authorization workflows using JWT tokens, securing user access and sensitive data.

SPP42

August 2023 – September 2023

Backend Developer Intern

Ankara, Turkey

- **Developed a modular admin console** for the Edu4Mat platform with **Python** and **Flask**, streamlining teacher-student assignments.
- **Enhanced** cross-device responsiveness by refactoring **HTML, CSS, and JavaScript**, achieving a **30% reduction** in page load times across mobile and desktop platforms.
- Designed and implemented RESTful APIs to enable seamless communication between the admin console and the Edu4Mat database.
- Utilized SQLite for data management, ensuring efficient data retrieval and minimal latency for admin operations.
- Collaborated with the frontend team to align UI designs with backend functionalities, ensuring a cohesive user experience.

Personal Projects/Awards & Achievements

OSDS: Fully Secure OSDS | Full Stack Web Development

November 2024 - December 2024

- Built a distributed system for managing encrypted student documents using Next.js, FastAPI, and Redis.
- Implemented RSA encryption for digital signatures and DES encryption for secure data storage.
- Designed workflows for staff to manage records and keys, and for students to request encrypted documents.
- **Technologies:** Nextjs, FastApi, Redis, TypeScript, Tailwind CSS, Python

[MapApplication](#): Interactive Map App | Full Stack Web Development

July 2024 - September 2024

- Developed a map app enabling users to draw points and shapes, with customizable attributes like names and descriptions.
- Integrated OpenLayers for advanced mapping features, improving usability and interactivity.
- Built RESTful APIs with .NET Web API and synchronized data with a PostgreSQL backend.
- Migrated frontend to React, enhancing code reusability and state management, with a responsive UI styled using Tailwind CSS.
- **Technologies:** C#, .NET Web Api, HTML, CSS, Javascript, React, Tailwind CSS, TypeScript, Openlayers