

Furkan Semizoğlu

Jr. Software Engineer

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PROFILE

I am currently a fourth-year computer engineering student with a strong passion for **software development** and **problem-solving**. Throughout my academic journey, I have built and deployed full-stack projects using the **MERN** stack (MongoDB, Express.js, React.js, Node.js) and **Next.js**. I have gained backend development experience using **NestJS**, **Prisma**, and both **PostgreSQL** and **MSSQL** databases. I am also proficient in **C#** and the **.NET** framework, which I have used to develop robust backend services and **RESTful APIs**. On the mobile side, I have worked with **React Native** to build cross-platform applications. I am always eager to explore new technologies and tackle complex challenges, and I am confident that my technical skills and determination will allow me to contribute effectively to your team.

EDUCATION

Dokuz Eylul University

Bachelor's degree in Computer Engineering

2022 – 2026 | İzmir, Turkey

EXPERIENCE

SKYMOD - JR. SOFTWARE DEVELOPER

10/2025 – 11/2025 | İzmir, Turkey

I performed **AI product testing** and enhanced the **modularity** and **code quality** of existing test automation frameworks. To simplify test execution, I developed a **Tkinter-based GUI**, which I later transformed into a **Flask + React.js web application**. I created **Selenium-based automated test cases** in **Python** and **containerized the project using Docker** to improve scalability and deployment efficiency. Additionally, I collaborated **directly with clients** to gather requirements and **integrated an AI agent into Google Chat**, aligning the solution with their specific needs.

SİSKON - SOFTWARE DEVELOPMENT INTERN

07/2025 – 09/2025 | İzmir, Turkey

During my internship, I have worked with **React.js**, **.NET** and **MS SQL** Server on various projects. These include developing the backend and database structure of an **Office Lighting System**, building the **Sia Time Tracker** application where employees can enter and list their daily tasks, implementing a **Worker Service** for the Rio Simulator that continuously checks whether data from machines is running on different threads and sends real-time data through **RabbitMQ**, making improvements to a Formula Engine that processes data from PLC devices, and developing an **MCP Server** to read SQL tables. I also gained experience with real-time communication technologies such as **MQTT**, **RabbitMQ**, and **gRPC**.

FREELANCE - FULL STACK DEVELOPER

02/2025 – 03/2025 | Remote

I worked on a **B2B marketplace** platform focused on building a system that connects suppliers and customers, incorporating dynamic pricing and product storage features. At the beginning of the project, I conducted business analysis and created **ER diagrams and use case diagrams** to clarify system requirements and guide development. I designed and implemented the database architecture using **PostgreSQL** and **Prisma ORM**, ensuring a well-structured and efficient foundation for data management. The backend was developed using **NestJS** within a **modular monolithic architecture**, where I created and deployed most of the necessary endpoints.

EFİLLİ - FULL STACK DEVELOPMENT INTERN

07/2024 – 09/2024 | Remote

During my internship, I have developed a **language-catcher tool** that collapses necessary data to detect the language of the given URLs and websites. I implemented this functionality as a **full-stack application** that works with the **Chrome extension**. I improved my skills in **end-to-end application development**, **implementing various integration methods**, and **creating comprehensive project documentation**.

REFERENCES

Burcu Musaoğlu, Head of R&D Department, Siskon Software & Automation

0532 673 76 02

Emre Şanlı, Technical Lead, Siskon Software & Automation

0531 842 87 71

PROJECTS

LANGUAGE-CATCHER 🌐

- This project **automates** language detection for cookies across websites, **removing the need for manual checks**.
- Developed a full-stack application that works with the chrome extension. Also chrome extension can be work as a full-stack application and can be used every website.

- The extension was built with **Vue.js** and the **Chrome Extensions API**, while the full-stack application uses **Node.js, MongoDB, Vue.js, and TypeScript**.
- The extension also functions as an **API**, offering authentication features with **JWT** and **bcrypt.js**, and allowing users to manage and view their saved URLs. **Detailed documentation** was created to help users fully understand and utilize its capabilities
- The extension includes its **own UI** for displaying data, **but users can also bypass the built-in UI and fetch data directly to create a custom interface**. This flexibility allows for **various integration** options.

Speak And Rise

- Built a full-stack debate application using **NestJS** and **Next.js**, enabling users to create, join, and participate in structured discussions.
- Built the backend using **NestJS** with a **modular architecture**, implementing secure authentication via **JWT** and **Bcrypt**, and ensuring robust session management with **refresh tokens**.
- Implemented **LiveKit Cloud** for real-time voice communication, creating dynamic audio rooms where users can talk freely with random participants.
- Used **Socket.IO** to handle real-time room events such as joining, leaving, and user activity synchronization, ensuring low-latency interactions.
- Developed RESTful APIs and integrated them with a responsive frontend using **Tailwind CSS, Framer Motion, and TypeScript**.
- Modeled relational data using **PostgreSQL** and **Prisma ORM**, covering users, debates, rooms, participants, and status tracking for both debates and rooms.

B2B-MARKETPLACE

- Designed and implemented the database schema using **PostgreSQL** and **Prisma ORM**, ensuring efficient data management and scalability
- Developed the backend using **NestJS** in a **modular monolithic architecture**, strategically designed for an easier transition to a **microservices** architecture in the future.
- Developed and deployed most of the necessary **RESTful endpoints**, ensuring secure and efficient communication between the frontend and backend.
- Wrote **unit, integration, and endpoint tests** to ensure the reliability of the system, covering various test scenarios.
- Containerized the application using **Docker**, enabling a seamless and scalable deployment process.
- Integrated **real-time user testing mechanisms** to monitor and validate system performance dynamically.

Rio Simulator

- Developed **RIO Simulator**, working on both the **frontend** and **backend worker service**.
- Implemented a **worker service** that created a dedicated thread for each machine operation, processing incoming data and forwarding it to another service via **RabbitMQ**.
- Enabled real-time monitoring by publishing machine status updates (**running / not running**) to the frontend through **MQTT**.
- On the frontend, consumed processed data from **RabbitMQ** and machine statuses from the worker service via **MQTT**, displaying everything in a **grid table**.
- Built the system using **.NET, React, and MS SQL Server**, ensuring reliability, scalability, and clear visualization of machine data.

Office Lighting System

- Developed an **office lighting management system** with a backend focus, enabling centralized control of office lights.
- Implemented functionality to **send requests to a gRPC service** for controlling and monitoring the lighting system in real time.
- Integrated **MQTT** to subscribe and listen to messages from devices, ensuring seamless two-way communication.
- Designed and optimized the **database schema** using **MS SQL Server**, ensuring efficient data storage and retrieval.
- Built the backend using **.NET** and **Dapper**, focusing on performance and maintainability.
- Implemented **authentication and login token mechanisms** to secure access and manage user sessions effectively.

SKILLS

.Net	● ● ● ● ●	Node.js	● ● ● ● ●
Java	● ● ● ● ●	Vue.js	● ● ● ● ●
Next.js	● ● ● ● ●	React.js	● ● ● ● ●
Nest.js	● ● ● ● ●	TypeScript	● ● ● ● ●
SQL	● ● ● ● ●	React Native	● ● ● ● ●