

Mustafa Erhan Portakal

Full-Stack Engineer (Backend-Oriented)

✉ portakalm11@gmail.com

📞 +90 507 413 1160

📍 Istanbul, Turkey

Github

LinkedIn

🔗 mustafaerhanportakal.com

💼 PROFESSIONAL SUMMARY

I am a **backend-focused Full-Stack Engineer** with experience building **production-ready applications** using React, Node.js, TypeScript, and ASP.NET Core. I am a holder of the IBM Full Stack Software Developer Professional Certificate.

I work primarily with Node.js-based backend services and have practical experience in building scalable architectures, containerization with Docker, and using SQL and NoSQL databases together. I place strong emphasis on clean architecture, maintainable code, and understanding real-world production behavior.

I am interested in **backend-focused full-stack or backend engineer roles**, contributing to scalable SaaS products and AI-powered systems.

💼 EXPERIENCE

BRM SOFTWARE

09/2024 – 02/2025

Intern ASP.NET Developer

Bursa, Turkey

- Designed and implemented 8+ RESTful API endpoints using ASP.NET Core and Entity Framework.
- Optimized database queries, improving API response times by 25%.
- Collaborated with frontend team to integrate APIs into React modules, reducing integration defects through comprehensive Postman-led testing.
- Wrote unit and integration tests with xUnit covering 60% of backend logic.
- Documented API endpoints using Swagger.

YM IDIS

08/2022 – 09/2022

Intern .NET Software Engineer

Istanbul, Turkey

- Developed .NET applications with MVC architecture in an enterprise environment.
- Implemented CRUD operations and business logic with SQL Server.

🎓 EDUCATION

Bursa Technical University, Turkey

08/2025

B.Sc. Computer Engineering

Bursa, Turkey

Capstone Project: Moodify-AI

- Full-Stack music recommendation platform integrating Spotify and Gemini AI APIs
- Focused on clean architecture, API design, and AI-driven recommendation workflows

LANGUAGES

Turkish



Native

English



B1 (Intermediate – actively improving)

CORE SKILLS

React, TypeScript, Node.js, ASP.NET Core MongoDB, MS SQL, PostgreSQL REST APIs, JWT, OAuth2 Git, Docker, Kubernetes (Basic)

PROJECTS

Administration Panel ↗

React (TypeScript), Node.js, NestJS, PostgreSQL, REST API, JWT, Docker

A full-stack admin dashboard application was developed, featuring a modern user interface built with **React and TypeScript** and a **modular, scalable backend architecture using NestJS**.

JWT-based authentication and **role-based access control (RBAC)** were implemented, supporting **admin and user roles**.

CRUD operations for **user, member, and product management** were developed through **RESTful APIs**.

On the backend, **DTOs and data validation using Zod** were applied to ensure data integrity; on the frontend, **Material UI** was used to build administrative interfaces.

The application was **containerized with Docker** and **deployed to a live environment**. The project is under **active development**, with new features being continuously added.

Live demo: <https://yonetim.mustafaerhanportakal.com/> ↗ (*Development Environment*)

Moodweave ↗

AI-Powered Mood Analysis and Music Recommendation App

MoodWeave is a **backend-focused AI platform** that I developed **end-to-end independently**, delivering personalized music recommendations by analyzing users' textual input to detect their mood.

- Development of **RESTful APIs using Node.js and TypeScript**
- Integration of an **AI service layer** for mood analysis
- Integration of **third-party services**, including the **Spotify API**
- **Container-based backend setup using Docker**
- **Automated build and deployment** through **CI/CD pipelines**

Live demo: <https://moodweave.mustafaerhanportakal.com/> ↗ (*Development Environment*)

Moodify-AI ↗

Full-Stack Music Recommendation Platform | GitHub React, Node.js, Express, MongoDB, Spotify API, Gemini AI API

- Built sentiment-analysis-driven music recommendation system using Gemini AI.
- Implemented authentication, API architecture, and playlist generation workflows.
- Handled state management for 50+ concurrent users during testing.
- Tech Stack: React, Node.js, Express, MongoDB, Spotify API, Gemini AI API

CERTIFICATIONS

IBM Full Stack Software Developer Professional Certificate (Coursera) | Jan 2026 ↗

IBM Full Stack Software Developer Professional Certificate

Coursera | Jan 2026

- 15-course IBM professional program on full-stack and cloud native development
- Built and deployed full-stack SaaS applications
- Hands-on experience with React, Node.js, Docker, Kubernetes, CI/CD, Microservices