

Emre YILDIZ

Software Engineer | Backend Engineer | Tech Lead | Software Architect

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Summary

Senior Software Engineer and Tech Lead with 7+ years building backend and full-stack systems: .NET 6/ASP.NET Core, Node.js/NestJS, Python (Django, FastAPI), and Rust (Axum).

Designed microservices, event-driven systems (Kafka, RabbitMQ), and real-time apps using Redis, WebSocket, and MySQL/PostgreSQL with replicas.

Delivered scalable products on AWS/Docker/Kubernetes, React/Next.js frontends, and React Native/Flutter mobile apps; experience in Web3 (Solidity, Move).

Track record: scaled platforms to 20,000+ active users, processed 65,000+ workflows/year, and shipped \$25M+ exchange-volume projects.

Work Experience

Software Engineer

2025 – Present

ChessDuello Software Technologies Corporation

Remote

- Developed iOS/macOS chess application with SwiftUI featuring unique trivia-based gameplay mechanics
- Built Supabase backend with Deno 2 Edge Functions, Hono framework, and Drizzle ORM for PostgreSQL
- Implemented real-time multiplayer system with WebSocket channels for live match synchronization
- Designed complex match system with 8-phase architecture including AI bots and tournament support
- Created comprehensive API layer with offline queue, automatic retry logic, and response caching

Founder and Software Engineer

2025 – Present

Medivizi

Remote

- Architected multi-tenant Occupational Health and Safety (OHS) backend system using Rust with Axum framework
- Implemented Row-Level Security (RLS) for tenant isolation with PostgreSQL and SQLx compile-time checked queries
- Built real-time features with WebSocket support and S3-compatible storage using Garage
- Developed admin dashboard with HTMX, Askama templates, and TailwindCSS for seamless user experience
- Designed comprehensive database schema for appointments, training management, and safety compliance tracking

Tech Lead

2023 – 2024

BergX Software

Remote

- Led technical decisions and architecture design for multiple projects
- Mentored team members and conducted code reviews
- Managed project timelines and technical deliverables
- Built **jrkrpto.com** crypto news, analysis, and education platform with **Next.js** frontend and **NestJS** microservices backend
- Implemented event-driven architecture with **Kafka**; leveraged **Redis** Pub/Sub and caching for real-time updates
- Designed **MySQL** with read replicas and optimized data access patterns for high throughput
- Scaled infrastructure with load balancing and horizontal service replicas to support **20,000+ active users**
- Developed cross-platform mobile app with **React Native (Expo)** for iOS and Android
- Established centralized logging and monitoring with the **ELK** stack (Elasticsearch, Logstash, Kibana)
- Built DeFi dApps and a swap platform with **Next.js** and **Remix**, targeting Ethereum, zkSync Era, Arbitrum, Sui, Solana, and Aptos
- Authored and deployed smart contracts for staking, multisender, swap, token factory, vesting, and token lock using **Solidity**, **Move**, and **Rust**
- Implemented CEX/DEX trading bots with **Bun** and **TypeScript** for volume making, balance arbitrage, and market making
- Achieved significant exchange traction; one project reached **\$25M+** trading volume on MEXC

Software Engineer

2021 – 2023

Gunkom Software

Remote

- Developed **Flutter** iOS & Android application for **Magmaweld** (Zaimoglu Holding) with **.NET 6** backend; platform connecting customers with welding masters
- Built B2B e-commerce application with **Angular** frontend and **ABP .NET** backend for Altinyildiz Classics Business; processed **10,000** products in instant operations
- Supported workflow management platform for **Yasar Holding**; delivered **48** new features and **28** bug fixes; handled **65,000** workflows per year using **ASP.NET MVC**, **JavaScript**, **jQuery**
- Enhanced **Swift UIKit** iPad application integrated with **.NET** backend for a Germany-based natural materials apparel company
- Developed **Java** Android NFC payment app for **BR Store** with **3D Secure** gateway for B2B customers
- Upgraded company core boilerplate framework from **.NET Core 3.1** to **.NET 6.0**; developed automation scripts that improved new-project development speed by **5%** (as reported by other developers)

Senior Software Engineer

2017 – Present

Freelance / Contract

Remote

- Built **Chess Management Software** with **Angular** and **.NET**; used by chess club players for puzzle solving, rating improvement, analytics, and education with videos and documentation
- Developed web scraping and analytics system for an AI analytics company; fetched laptop data from multiple e-commerce sites and analyzed it with a **FastAPI Python** backend
- Developed **Django Python** backend web application for a gym

Education

Ege University

Izmir, Turkey

Master of Science in Computer Engineering; Concentration: Distributed Systems

2024 – 2026

Celal Bayar University

Manisa, Turkey

Bachelor of Science in Computer Engineering; GPA: 3.32/4.00

2020 – 2024

Ahmet Yassawi University

Turkestan, Kazakhstan

Bachelor of Science in Computer Engineering; GPA: 3.81/4.00

2019 – 2022

Dokuz Eylul University

Izmir, Turkey

Associate's Degree in Computer Programming; GPA: 3.40/4.00

2016 – 2018

Technical Skills

Languages:

- C#, TypeScript, JavaScript, Python, Java, Rust, Solidity, Swift, Dart, SQL, Bash

Backend:

- .NET 6, ASP.NET Core, Entity Framework, Node.js (NestJS, Express), Django, FastAPI, Spring Boot, Axum

Frontend:

- Angular, React, Next.js, Remix, Redux, React Query, Tailwind CSS, Material UI

Mobile:

- Flutter, React Native (Expo), Android (Java), iOS (Swift/UIKit)

Blockchain:

- Ethereum, Solidity, Web3.js, Hardhat, Foundry, zkSync Era, Arbitrum, Aptos, Sui

Databases:

- PostgreSQL, MySQL (replication), MS SQL Server, Redis, MongoDB, CouchDB

Cloud/DevOps:

- AWS, Docker, Kubernetes, CI/CD (GitHub Actions), Linux, NGINX, HAProxy, ELK (Elastic, Logstash, Kibana), Grafana/Prometheus

Architecture:

- Microservices, REST APIs, GraphQL, gRPC, RabbitMQ, Kafka, Event-Driven Architecture, Caching (Redis), WebSocket

AI/ML:

- LangChain, LangGraph, Pydantic AI, pgvector, n8n, MCP, TensorFlow, PyTorch

Agentic AI Development:

- Claude Code, Cursor, OpenRouter, MCP (Model Context Protocol), Python, FastAPI

Tools:

- Agile/Scrum, Jira, Confluence, Selenium, Puppeteer, Postman, VS Code, IntelliJ IDEA

Projects

ChessDuello - Multiplayer Chess Game

2025 | *SwiftUI, Supabase, Deno 2, PostgreSQL, WebSocket*

- Built iOS/macOS chess application with innovative trivia-based move unlock system
- Implemented real-time multiplayer matches with 3-minute rounds and 24-hour response windows
- Developed comprehensive backend with Edge Functions, service layer pattern, and Row-Level Security

Medivizi - OHS Management Platform

2025 | *Rust, Axum, PostgreSQL, HTMX, WebSocket*

- Architected multi-tenant SaaS platform for Occupational Health and Safety management
- Built with compile-time SQL verification using SQLx and comprehensive RLS policies
- Integrated real-time features for appointments, training sessions, and safety compliance tracking

Blockchain Web3 Application

2023 | *Next.js, NestJS, MySQL, Solidity, Web3.js*

- Developed full-stack Web3 application for token transactions and market bot management
- Implemented smart contracts on Ethereum, ZkSync, and Arbitrum networks
- Built real-time market analysis features with automated trading capabilities

jrkrpto.com - Crypto News & Education Platform

2023–2024 | *Next.js, NestJS, MySQL (replicas), Redis Pub/Sub, Kafka, ELK, React Native (Expo)*

- Built crypto news, analysis, and education platform with Next.js frontend and NestJS microservices backend
- Implemented event-driven microservices with Kafka; used Redis Pub/Sub and caching for real-time updates
- Designed MySQL with read replicas; scaled with load balancing and horizontal replicas to 20,000+ active users
- Centralized logging and monitoring with ELK; delivered mobile app with React Native (Expo)

DeFi dApps & Swap Platform

2023 | *Next.js, Remix, Solidity, Move, Rust, Bun, TypeScript*

- Developed dApps and swap platform across Ethereum, zkSync Era, Arbitrum, Solana, Sui, and Aptos
- Authored contracts for staking, multisender, swap, token factory, vesting, and token lock
- Built CEX/DEX trading bots (Bun + TypeScript) for volume making, balance arbitrage, and market making; one project hit \$25M+ volume on MEXC

Enterprise Workflow Management System

2022 | *.NET Core, Angular, PostgreSQL, REST API*

- Supported enterprise workflow system processing 65,000+ workflows for multiple companies
- Implemented REST API endpoints for workflow initialization and management
- Organized version control system and implemented new features with bug fixes

Chess Course Management System

2021 | *C#, .NET Core, MSSQL, Entity Framework*

- Built comprehensive web application for student progress tracking and attendance management
- Implemented chess puzzle homework submission and automated grading system
- Designed database schema for efficient data retrieval and reporting