

Emre YILDIZ

Software Architect and Engineering Lead

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Summary

Led development of enterprise-scale applications with 7+ years architecting full-stack solutions and microservices. Designed and implemented multi-tenant SaaS platforms, blockchain Web3 applications, and real-time systems. Scaled technical teams while delivering high-performance solutions for B2B e-commerce, fintech, and OHS industries. Optimized legacy systems through strategic migrations and deployed cloud-native architectures on AWS and Kubernetes.

Work Experience

Software Engineer <i>ChessDuello Software Technologies Corporation</i>	2025 – Present <i>Remote</i>
<ul style="list-style-type: none">Developed iOS/macOS chess application with SwiftUI featuring unique trivia-based gameplay mechanicsBuilt Supabase backend with Deno 2 Edge Functions, Hono framework, and Drizzle ORM for PostgreSQLImplemented real-time multiplayer system with WebSocket channels for live match synchronizationDesigned complex match system with 8-phase architecture including AI bots and tournament supportCreated comprehensive API layer with offline queue, automatic retry logic, and response caching	
Founder and Software Engineer <i>Medivizi</i>	2025 – Present <i>Remote</i>
<ul style="list-style-type: none">Architected multi-tenant Occupational Health and Safety (OHS) backend system using Rust with Axum frameworkImplemented Row-Level Security (RLS) for tenant isolation with PostgreSQL and SQLx compile-time checked queriesBuilt real-time features with WebSocket support and S3-compatible storage using GarageDeveloped admin dashboard with HTMX, Askama templates, and TailwindCSS for seamless user experienceDesigned comprehensive database schema for appointments, training management, and safety compliance tracking	
Tech Lead <i>BergX Software</i>	2023 – 2024 <i>Remote</i>
<ul style="list-style-type: none">Led technical decisions and architecture design for multiple projectsMentored team members and conducted code reviewsManaged project timelines and technical deliverables	
Software Engineer <i>Gunkom Software</i>	2021 – 2023 <i>Remote</i>
<ul style="list-style-type: none">Upgraded company core boilerplate framework from .NET Core 3.1 to .NET Core 6.0Developed enterprise-level frontend and backend applicationsImplemented Python automation tools for development environment optimizationAdded REST API endpoints for workflow management system handling 65,000+ flows	
Senior Software Engineer <i>Freelance / Contract</i>	2017 – Present <i>Remote</i>
<ul style="list-style-type: none">Developed B2B e-commerce platform with Angular frontend and ABP .NET backend for Altinyildiz Classics and Beymen BusinessBuilt blockchain analytics web app using NextJS and React NativeDeveloped NestJS microservice backend and integrated with jrkripto.comBuilt enterprise Flutter mobile app for customer-welder portal deployed to PlayStore and AppleStore (MagmaWeld)Implemented Swift iOS features for enterprise iPad application including custom keyboard for product orderingDeveloped NFC payment Android application with Java and bank gateway integrationCreated NestJS backend boilerplate with authentication, Redis cache, Bull queue, JWT, and cron jobs	
Instructor <i>Betul Cemre YILDIZ Chess and Robotic Organization</i>	2017 – Present <i>Izmir, Turkey</i>
<ul style="list-style-type: none">Teaching C# programming and Linux administration to high school studentsConducting drone certification courses	

Education

Ege University <i>Master of Science in Computer Engineering; Concentration: Distributed Systems</i>	Izmir, Turkey 2024 – 2026
Celal Bayar University <i>Bachelor of Science in Computer Engineering; GPA: 3.32/4.00</i>	Manisa, Turkey 2020 – 2024
Ahmet Yassawi University <i>Bachelor of Science in Computer Engineering; GPA: 3.81/4.00</i>	Turkestan, Kazakhstan 2019 – 2022
Dokuz Eylul University <i>Associate's Degree in Computer Programming; GPA: 3.40/4.00</i>	Izmir, Turkey 2016 – 2018

Technical Skills

Languages: <ul style="list-style-type: none">• C#, TypeScript, JavaScript, Python, Java, Rust, Solidity, Swift, Dart, SQL, Bash
Backend: <ul style="list-style-type: none">• .NET Core, ASP.NET, Entity Framework, NestJS, Express, Django, FastAPI, Spring Boot, Axum
Frontend: <ul style="list-style-type: none">• Angular, React, NextJS, Vue.js, Redux, React Query, Tailwind CSS, Material-UI
Mobile: <ul style="list-style-type: none">• Flutter, React Native, Android (Java), iOS (Swift/UIKit)
Blockchain: <ul style="list-style-type: none">• Ethereum, Solidity, Web3.js, Hardhat, Foundry, ZkSync, Arbitrum, Aptos, Sui
Databases: <ul style="list-style-type: none">• PostgreSQL, MySQL, MSSQL, Redis, MongoDB, CouchDB
Cloud/DevOps: <ul style="list-style-type: none">• AWS, Docker, Kubernetes, CI/CD, Linux, Nginx, HAProxy, Git, GitHub Actions
Architecture: <ul style="list-style-type: none">• Microservices, REST API, GraphQL, gRPC, RabbitMQ, Kafka, Event-Driven Design
AI/ML: <ul style="list-style-type: none">• LangChain, Pydantic AI, pgvector, n8n, MCP Protocol, TensorFlow, PyTorch
Tools: <ul style="list-style-type: none">• Agile/Scrum, Jira, Confluence, Selenium, Puppeteer, Postman, VS Code, IntelliJ IDEA

Projects

ChessDuello - Multiplayer Chess Game <i>2025 SwiftUI, Supabase, Deno 2, PostgreSQL, WebSocket</i> <ul style="list-style-type: none">• 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 <i>2025 Rust, Axum, PostgreSQL, HTMX, WebSocket</i> <ul style="list-style-type: none">• 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 <i>2023 NextJS, NestJS, MySQL, Solidity, Web3.js</i> <ul style="list-style-type: none">• 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
Enterprise Workflow Management System <i>2022 .NET Core, Angular, PostgreSQL, REST API</i> <ul style="list-style-type: none">• 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

BASE Programming Language

2021 | Python, Compiler Design | [GitHub](#)

- Designed and implemented custom programming language with Python interpreter
- Developed lexer, parser, and interpreter components following compiler design principles