

# Emre YILDIZ

Software Architect & Engineering Lead

Izmir, Turkey | +90 532 563 0256 | [emre.yildiz.dev@hotmail.com](mailto:emre.yildiz.dev@hotmail.com)

LinkedIn: <https://linkedin.com/in/emre-yildiz-297ab0242>

GitHub: <https://github.com/emre-yildiz-dev>

## Summary

Experienced Software Architect and Engineering Lead with 7+ years developing enterprise-scale applications. Strong expertise in full-stack development, microservices architecture, blockchain technologies, and cloud platforms. Proven track record of leading technical teams, upgrading legacy systems, and delivering high-performance solutions for B2B e-commerce, fintech, and Web3 applications. Passionate about innovative technology solutions and continuous learning.

## Work Experience

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

Education

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

Technical Skills

<b>Languages:</b> C#, TypeScript, JavaScript, Python, Java, Rust, Solidity, Swift, Dart, SQL, Bash <b>Backend:</b> .NET Core, ASP.NET, Entity Framework, NestJS, Express, Django, FastAPI, Spring Boot, Axum <b>Frontend:</b> Angular, React, NextJS, Vue.js, Redux, React Query, Tailwind CSS, Material-UI <b>Mobile:</b> Flutter, React Native, Android (Java), iOS (Swift/UIKit) <b>Blockchain:</b> Ethereum, Solidity, Web3.js, Hardhat, Foundry, ZkSync, Arbitrum, Aptos, Sui <b>Databases:</b> PostgreSQL, MySQL, MSSQL, Redis, MongoDB, CouchDB <b>Cloud/DevOps:</b> AWS, Docker, Kubernetes, CI/CD, Linux, Nginx, HAProxy, Git, GitHub Actions <b>Architecture:</b> Microservices, REST API, GraphQL, gRPC, RabbitMQ, Kafka, Event-Driven Design <b>AI/ML:</b> LangChain, Pydantic AI, pgvector, n8n, MCP Protocol, TensorFlow, PyTorch <b>Tools:</b> Agile/Scrum, Jira, Confluence, Selenium, Puppeteer, Postman, VS Code, IntelliJ IDEA	
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Projects

<b>ChessDuello - Multiplayer Chess Game</b>   <i>SwiftUI, Supabase, Deno 2, PostgreSQL, WebSocket</i> <ul style="list-style-type: none"><li>Built iOS/macOS chess application with innovative trivia-based move unlock system</li><li>Implemented real-time multiplayer matches with 3-minute rounds and 24-hour response windows</li><li>Developed comprehensive backend with Edge Functions, service layer pattern, and Row-Level Security</li></ul>	2025
<b>Medivizi - OHS Management Platform</b>   <i>Rust, Axum, PostgreSQL, HTMX, WebSocket</i> <ul style="list-style-type: none"><li>Architected multi-tenant SaaS platform for Occupational Health and Safety management</li><li>Built with compile-time SQL verification using SQLx and comprehensive RLS policies</li><li>Integrated real-time features for appointments, training sessions, and safety compliance tracking</li></ul>	2025
<b>Blockchain Web3 Application</b>   <i>NextJS, NestJS, MySQL, Solidity, Web3.js</i> <ul style="list-style-type: none"><li>Developed full-stack Web3 application for token transactions and market bot management</li><li>Implemented smart contracts on Ethereum, ZkSync, and Arbitrum networks</li><li>Built real-time market analysis features with automated trading capabilities</li></ul>	2023
<b>Enterprise Workflow Management System</b>   <i>.NET Core, Angular, PostgreSQL, REST API</i> <ul style="list-style-type: none"><li>Supported enterprise workflow system processing 65,000+ workflows for multiple companies</li><li>Implemented REST API endpoints for workflow initialization and management</li><li>Organized version control system and implemented new features with bug fixes</li></ul>	2022
<b>Chess Course Management System</b>   <i>C#, .NET Core, MSSQL, Entity Framework</i> <ul style="list-style-type: none"><li>Built comprehensive web application for student progress tracking and attendance management</li><li>Implemented chess puzzle homework submission and automated grading system</li><li>Designed database schema for efficient data retrieval and reporting</li></ul>	2021
<b>BASE Programming Language</b>   <i>Python, Compiler Design</i>   <a href="#">GitHub</a> <ul style="list-style-type: none"><li>Designed and implemented custom programming language with Python interpreter</li><li>Developed lexer, parser, and interpreter components following compiler design principles</li></ul>	2021