Emre YILDIZ

Software Architect & Engineering Lead

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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.

Experience

Founder & 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

Software Engineer — 2021 – 2023

Gunkom Software — *Remote*

- Upgraded company core boilerplate framework from .NET Core 3.1 to .NET Core 6.0
- Developed enterprise-level frontend and backend applications
- Implemented Python automation tools for development environment optimization
- Added REST API endpoints for workflow management system handling 65,000+ flows

Senior Software Engineer — 2017 – Present

Freelance / Contract — *Remote*

- Developed B2B e-commerce platform with Angular frontend and ABP .NET backend for Altinyildiz Classics & Beymen Business
- Created blockchain analysis web and mobile applications using NextJS, React Native, and NestJS microservices (jrkripto.com)
- Built 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 ordering
- Developed NFC payment Android application with Java and bank gateway integration
- Created NestJS backend boilerplate with authentication, Redis cache, Bull queue, JWT, and cron jobs

Instructor — 2017 – Present

Betul Cemre YILDIZ Chess and Robotic Organization — *Izmir, Turkey*

- Teaching C# programming and Linux administration to high school students
- Conducting drone certification courses

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

Projects

Blockchain Web3 Application | *NextJS, NestJS, MySQL, Solidity, Web3.js*   2023
- 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 | *.NET Core, Angular, PostgreSQL, REST API*   2022
- 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 | *C#, .NET Core, MSSQL, Entity Framework*   2021
- 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 | *Python, Compiler Design* | GitHub   2021
- Designed and implemented custom programming language with Python interpreter
- Developed lexer, parser, and interpreter components following compiler design principles