Abbas Tolgay Yılmaz

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atyilmaz.com

I am a senior fullstack software engineer with over 9 years of experience, specializing in designing and implementing highly-scalable systems using Go and nodejs/typescript.

As the founder of Naive AI and Diplomacy Network initiatives and an artist at heart, I've demonstrated leadership in building platforms and passion-critical services.

I actively contribute to the Go ecosystem, particularly the Fiber framework, having created several widely-used middleware components. My background spans e-commerce, AI/ML applications, and distributed systems, with a focus on creating secure, scalable architectures.

I can understand and speak:
Turkish (native), English (pro), German (< B1)

education

Information and Technology Law
2016- 2018 (dropped)

Istanbul Bilgi University

Bachelor of Computer Engineering
2008- 2014

Izmir Institute of Technology

Computer Science
Spring 2011
Erasmus exchange studies
Aarhus University

tech, I've been using

Go ~ Primary language for building enterprise-grade distributed systems. Extensive experience in designing and implementing highly-scalable microservices using Fiber and Gin frameworks. Created several open-source middleware packages including fibergun (p2p data sync) and seamlink (SEO tracking).

Backend & APIs ~ Deep expertise in designing RESTful APIs, GraphQL services, and real-time communication using WebSockets/SSE. Strong foundation in microservices architecture, DDD, and event-driven systems.

Cloud & DevOps ~ Proficient with containerization (Docker), orchestration, and cloud services (Google Cloud). Implemented robust CI/CD pipelines using GitHub Actions, focusing on automated testing and deployment.

Data & Message Systems ~ Experience with various databases (PostgreSQL, MongoDB, Cassandra) and message brokers (RabbitMQ, NATS) for building highly available systems. Implemented caching strategies using Redis and Elasticsearch for performance optimization.

Frontend & Mobile ~ Proficient in modern JavaScript/TypeScript stack including React, Node.js, and NestJS. Experience with Flutter/Dart for cross-platform development.

AI/ML Development ~ Currently building RAG systems, classifiers, and model trainers in Python. Integration experience with various ML frameworks and ChromaDB for vector storage.

Security & Authentication ~ Implemented OAuth2 providers, JWT-based authentication systems, and secure API gateways.

+ Experience with Solidity and blockchain protocols for secure digital assets (ERC standards).
++ 3 years professional experience with Java/Spring boot.

Architecture & Patterns ~ Fairly confident with:
- Distributed systems design
- Microservices architecture
- Domain-driven design
- Event-driven architecture
- Concurrent programming
- Network protocols (TCP/IP, HTTP)

recently;

Start a World Peace Teknoloji A.Ş.

Antalya, 10.2023, present

Founded this company for positive impact.
Browse our initiavites and consultancy projects at:
https://www.stateful.art/projects

Free and Open Source:

https://github.com/streamerd/fibergun - GunDB p2p middleware for Fiber web framework

https://github.com/streamerd/seamlink - A lightweight, SEO-friendly link tracking middleware for Fiber web framework

https://github.com/streamerd/diplo-ai   - An AI toolkit classifying diplomatic statements, generate responses, recommendations

https://github.com/streamerd/paytr-go - Go SDK for PayTR payment system

https://github.com/streamerd/somafm-cli-go - A terminal-based SomaFM radio player

https://github.com/streamerd/react-draggify - A React window management system that turns any app fully draggable

Diplomacy Network

Antalya, 7.2024, present

Developed a citizen recognition platform using Go and Fiber framework, Postgres, and utilised S3 as object storage for Proof of Peacemaking and Recognitions (certificates).
Created distributed event-driven architecture for handling citizenship attestations
Established CI/CD pipelines and documentation practices for open source contributors

Naive AI

Antalya, 5.2024, present

Architected and implemented a high-performance content analysis API using Go and ML models
Designed scalable microservices for real-time sentiment analysis and content moderation
Led the development of Discord bot integration handling thousands of daily requests
Established monitoring and observability practices for production services
Curated public data, built and maintained APIs for developer integration
Developed a weight based calculation system for daily/weekly/monthly API usage.

NewSquare Media

Antalya, 3.2023, present

Architected and implemented a distributed music discovery platform using Go microservices
Built real-time music metadata synchronization system interfacing with Spotify and YouTube Music APIs
Designed and implemented the initial desktop client using Go/Wails.io for cross-platform compatibility
Implemented real-time venue analytics and monetization systems using event-driven architecture
Created secure API gateway for managing venue-artist relationships and revenue sharing
Currently leading migration to Flutter for enhanced UI/UX and broader platform and community support

corporate experience

fullstack dev

Vattenfall Energy Trading GmbH
Hamburg, 5.2019-4.2022

Enrolled in the development of a containerized platform to create aggregators for data feeds and models for Princess Alexia windpark in the Netherlands.

Primarily worked on data aggregation, wind tribune curtailing (scheduling), enhancing the profitability of energy trading operations.

Utilized Core Java and Spring Boot to implement functionalities for electric vehicle charging stations, while leveraging Cassandra time series database and OpenMUC to leverage secure communication with CHP/coal plants.

This project was the last time I've coded with JVM languages.

fullstack dev

Element Insurance AG
Lübeck, 11.2018 –5.2019

Played a pivotal role in enhancing insurance services by integrating new capabilities, including developing parts of microservices for domain teams.

Demonstrated versatility by adapting to AWS cloud services, contributing to the company's technological evolution in the insurance domain.

fullstack dev

Türkiye İş Bankası
Istanbul, 8.2017-10.2018

Contributed to the development of a web tool for my client, Türkiye İş Bankası.

Optimized the API testing process, boosting the reliability of the web services within the banking infrastructure.

Reverse engineered SOAPUI desktop app into a web application using their Java API

This resulted in significant cost savings for our client relating to their license agreement with SOAPUI and transition to our solution.

integraton engineer

Ericsson
Istanbul, 7.2014-4.2017

Was responsible for maintaining, configuring, and testing business support systems for various Telco providers in Turkey.

Ensured the reliability of the user-facing services by conducting thorough testing procedures on Ericsson's systems.

Collaborated with local GSM operators to understand and address specific requirements and had part in conducting the UAT phase for 2 major digital transformation projects, one being for Vodafone TR. .

internship

Sabancı University
Istanbul, 6-8.2012

As an intern at the Computer Graphics laboratory, I've developed a hybrid algorithm for dynamic rendering of location-based and feature-based annotations for augmented reality. Worked with Processing lang for simulating the collision detections.