Senior Software Engineer

Burak Karakaya.

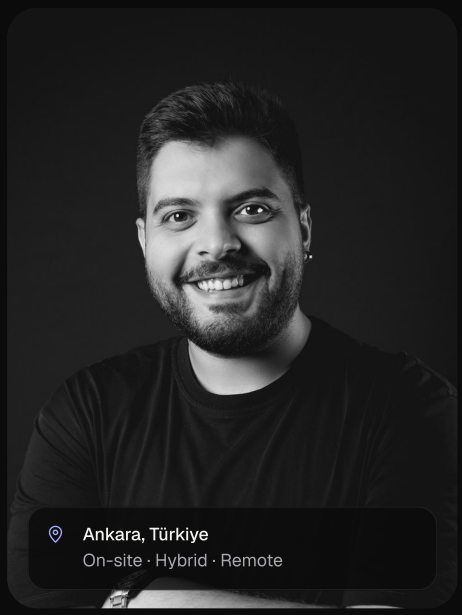
8+ years of experience in .NET and cloud-based development. Collaborative, solution-oriented, and quick to adapt to new business domains.

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Ankara, Türkiye
On-site · Hybrid · Remote

Profile

Senior Software Engineer with 8+ years of experience building scalable SaaS platforms and secure, distributed systems across electronic-signature, automotive, machinery and tourism domains.

Specialized in .NET and distributed architectures — microservices, gRPC, DDD and CQRS — with hands-on depth in e-signature and PKI standards (CAdES, PAdES, XAdES) and smart-card integrations. Leads products end to end — from architecture and CI/CD to secure, high-availability operations on Azure, AWS, Kubernetes and Linux, including security audits and air-gapped on-prem delivery. A solution-oriented team player who adapts quickly to new domains and builds clean, future-proof systems with real business impact.

8+	4	5	Azure · AWS K8s · Linux
Years of experience	**Domains** E-signature · Automotive · Machinery · Tourism	SaaS platforms delivered	Cloud & infrastructure

Education & languages

Education — 2016 – 2022

İstanbul Bilgi University

Management Information Systems

Languages

Turkish	Native
English	Professional proficiency

Experience

Current role

Since Dec 2025

• Current

Senior Software Engineer

Lyfe Dijital Yazılım Ticaret A.Ş.

- Leads the architecture and evolution of SignGate, a .NET 10 gRPC microservice platform for CAdES, PAdES and XAdES signatures over PFX, mobile and smart-card channels.
- Built release and deployment pipelines across the product portfolio: GitHub Actions, GHCR images, manifest-driven test → UAT → prod promotion and rolling Podman Compose deploys.
- Designed on-prem distribution: a desired-state catalog, JSON-Schema-validated customer configs, a Helm umbrella chart and encrypted offline OCI bundles (ORAS + age).
- Built BOSS (Business & Operations Support System), the internal operations platform: a .NET 10 modular monolith with Entra ID SSO and Buddy, an AI agent with hardware-signed requests.
- Led security audits of the production stack and hardened Linux hosts for enterprise on-prem deliveries.
- Scaled delivery with AI coding agents under a coordinator/review workflow.

R&D focus

Research & development at imza.io

R1 Multi-channel e-signature engine

Creation and validation of CAdES, PAdES and XAdES signatures with qualified timestamps and OCSP/CRL revocation checks across PFX, smart-card and mobile channels.

R2 Signing at enterprise scale

Performance engineering for 6,000+ concurrent desktop signing clients in an enterprise deployment: root-cause analysis and a phased scaling roadmap.

R3 Hardware-backed request signing

Client requests signed with non-exportable TPM / Secure Enclave keys, binding every call to a trusted device.

R4 Air-gapped distribution

Encrypted, immutable OCI bundles that deliver the whole stack to data centers without internet access.

R5 Horizontally scalable real-time signing

Re-architected the real-time channel between SignGate and desktop clients so signing sessions route correctly across any number of nodes, ready for horizontal scaling on Kubernetes.

DevOps & security

imza.io · 2026

Security Engineering

- Led a read-only security audit of the production stack under formal rules of engagement — DNS and certificate-transparency recon, OSINT, registry audit, active scanning, Cloudflare edge and host review.
- Delivered a STRIDE threat model, risk heat map and executive report, and tracked remediation of critical findings through re-tests.
- Ran a follow-up external attack-surface review with ISO 27001-aligned recommendations, adding active monitoring as a compensating control.
- Hardened Linux hosts for on-prem delivery with SELinux / AppArmor, firewalld / UFW and SSH hardening across RHEL, Rocky, AlmaLinux and Ubuntu.
- Aligned log retention and personal-data processing with Turkish regulations: KVKK (Law No. 6698) and Law No. 5651 logging requirements.

Infrastructure & Operations

- Standardized repositories across the product portfolio — shared conventions, templates and CI — and automated build, test, release and deployment end to end.
- Manages production nodes on Proxmox VE and VMware Cloud Director (NSX): VM provisioning from cloud-init templates, networking and day-to-day operations.
- Operates workloads behind Cloudflare Zero Trust (Tunnel, Access, WARP, WAF) and Microsoft Entra ID, on rootless Podman and Kubernetes.

Operations toolkit

Virtualization

Proxmox VE · VMware Cloud Director · NSX · KVM / QEMU · cloud-init templates

Networking

OPNsense (CARP HA) · IPsec (VTI) · WireGuard · OpenVPN · FRR / eBGP · Traefik · HAProxy

Zero Trust & Identity

Cloudflare Tunnel, Access, WARP, WAF · Entra ID (Conditional Access, MFA, PIM) · Intune

Containers & Orchestration

Podman (rootless, Quadlet) · Docker · Kubernetes (RKE2, k3s) · Helm · Argo CD · Cilium

IaC, CI/CD & Cloud

Terraform · Ansible · GitHub Actions · GHCR / ORAS · Azure · AWS · GitLab · IIS

Linux & Hardening

Debian · Ubuntu · RHEL / Rocky / AlmaLinux · SELinux · AppArmor · firewalld · UFW

Security Testing & Compliance

Attack-surface OSINT (Censys, CT logs) · nmap · STRIDE · Trivy · SBOM · cosign · ISO 27001 · KVKK · Law 5651

Resilience & Observability

Patroni / etcd HA · Velero · R2 backups · Grafana · Loki · Tempo · Alloy · Prometheus

imza.io — Products & platforms

2025 — 2026

P01 • Production

SignGate

Lead engineer

02/2026 — Present

E-signature microservice platform creating and validating CAdES, PAdES, XAdES and UDF signatures over PFX, mobile and smart-card channels.

- Leads architecture and delivery across all 8 gRPC services
- One version shipped in lockstep to SaaS and enterprise on-prem

`.NET 10` `gRPC` `Aspire` `ma3api` `RabbitMQ` `OpenTelemetry`

P02 • Production

imza.io Easy

Lead engineer

03/2026 — Present

Electron desktop client that signs on USB tokens and smart cards (PC/SC, PKCS#11) and connects to SignGate in real time over SignalR.

- Per-environment release channels with slot swap and instant rollback
- Leads architecture and enterprise rollouts across Windows, macOS and Linux

`Electron` `React` `TypeScript` `PKCS#11` `SignalR` `Playwright`

P03 • Production

imza.io Platform

Lead engineer

12/2025 — Present

Document-workflow and e-signature SaaS: REST API, React web app, PDF conversion, SCIM provisioning, OIDC broker and scheduler.

- Leads the product's technical infrastructure and codebase end to end
- Independently versioned services with automated releases

`.NET 9` `Dapper` `PostgreSQL` `MassTransit` `Quartz` `React`

P04 • Production

Infrastructure & On-Prem Distribution

Architect & lead

02/2026 — Present

Container infrastructure for the SaaS, and a system that packages the whole stack for customer data centers — online or air-gapped.

- Automated SaaS bundling per target: Linux VM (Podman) or Kubernetes
- Customer tracking with per-customer desired state and validated configs
- Helm umbrella chart and Nexus registry support for enterprise delivery
- Encrypted offline OCI bundles for air-gapped data centers
- SaaS stack on rootless Podman: Traefik, HAProxy, Patroni HA PostgreSQL, Valkey

`Podman` `Kubernetes` `Helm` `Nexus` `Patroni` `ORAS` `Grafana`

P05 • Internal

BOSS

Architect & lead

06/2026 — Present

Business & Operations Support System — the company's internal platform for issue tracking, customers, assets, a secrets vault and notifications.

- Modular-monolith architecture with contract-first APIs and Entra ID SSO
- Buddy AI agent: local MCP server with hardware-signed requests

`.NET 10` `EF Core` `React` `Entra ID` `MCP` `Avalonia`

Earlier experience

2018 — 2025

– 2025

Senior Software Developer

Fibula Travel

- Developed an API platform that aggregates and normalizes data from multiple tour operators for consistent distribution to client systems.
- Designed an MCP-based live-chat integration for hotel search and booking, and an ABP-inspired Core framework published on AWS Artifact.

2018 — 2025

Senior Software Developer

Teknik Medya Mühendislik ve Danışmanlık Ltd. Şti.

Software Developer 2018 — 2021 · Senior 2021 — 2025

- Led the development of a multitenant SaaS platform serving multiple manufacturers, with dynamic access control and multilingual support.
- Designed an internal PMS and owned the full-stack architecture and infrastructure across IIS, Windows Server and Azure.
- Developed a full-stack after-sales service platform for Karsan and managed its deployment and operations on IIS and Windows Server.

Earlier projects

Role · Senior Software Engineer

Tour Operator Aggregation API — Unified data from multiple tour operators — Fibula Travel

.NET 8 · EF Core · AWS · REST API · Redis · DDD

MCP Chat Integration — Hotel search and booking through live chat — Fibula Travel

.NET 8 · LLM / MCP Protocol · AWS · Redis

Core Framework — ABP-inspired internal package on AWS Artifact — Fibula Travel

.NET Standard 2.0+ · AWS Artifact · Internal NuGet Package

Klasid — Multitenant after-sales SaaS for manufacturers — Teknik Medya

.NET 8 · PostgreSQL · EF Core · Redis · React · Azure App Service

Pada5 — After-sales services platform for Karsan — Teknik Medya

.NET Core · EF Core · Redis · Azure Blob · SQL Server · IIS

TeaMedya PMS — Project workflows from quotation to invoicing — Teknik Medya

Next.js · React · .NET 8 · MS SQL · Azure Functions · SignalR

SonAR — AR visualization of complex machinery for Alapala — Teknik Medya

Unity GE · .NET · C# · WebSockets

Core competencies

Backend & Architecture	.NET 9/10 · ASP.NET Core · gRPC · Microservices · Modular monolith · Contract-first OpenAPI · DDD · CQRS · Event Sourcing · Saga · Clean Architecture · Java · Node.js · Go (basic)
Security, PKI & E-Signature	CAdES · PAdES · XAdES · ETSI / eIDAS · PKCS#11 · PC/SC smart cards · RFC 3161 / 5280 / 6960 / 5652 · TSA · OCSP · CRL · Merkle logs (RFC 6962) · TPM / Secure Enclave keys · TLS · OAuth2 · OIDC · JWT
Desktop & Client Apps	Electron · Avalonia · PKG / deb / rpm
Frontend	React · TypeScript · Next.js · Vite · Tailwind CSS · TanStack Query · MSW · Design systems as npm packages · Astro · SCSS
Data, Messaging & Real-Time	PostgreSQL + Patroni HA · SQL Server · Oracle · EF Core · Dapper · Redis / Valkey · Elasticsearch · RabbitMQ / MassTransit · Azure Service Bus · SignalR · Hangfire · Quartz
High Availability	Patroni / etcd PostgreSQL clusters · Cross-site replication · HAProxy & Traefik load balancing · CARP failover · SignalR scale-out · Zero-downtime deploys
Integrations	Mobile-operator signature services (SOAP) · SCIM · OIDC broker · Azure Blob · Amazon S3 · SendGrid · Mailtrap
Testing & Performance	xUnit · Testcontainers · Playwright · NBomber load testing · OpenTelemetry · Pyroscope · Serilog
AI / LLM & Agent Tooling	MCP server design · LLM integration · Multi-agent coding workflows

Areas of expertise

01 Trust & E-Signature

- Electronic signatures
- Public key infrastructure
- Timestamping & trust services
- Smart card & hardware security
- Desktop signing clients
- KVKK & Law 5651 compliance

02 Architecture & Data

- Distributed microservices
- Multi-tenant SaaS platforms
- Domain-driven design & CQRS
- Real-time systems
- High-availability data platforms
- Observability & performance

03 Platform & Security

- DevOps & platform engineering
- Virtualization & private cloud
- Zero Trust & identity
- Security audits & hardening
- Air-gapped on-prem delivery
- AI-assisted engineering (MCP)