Alper Can Yumuk

Principal Software Engineer

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Developer first: 10+ years building production systems at scale, from an event-driven public offering application at a national bank to a multi-tenant Azure/Kubernetes SaaS platform (22 production AKS clusters). Builds the software behind the platform—a shared .NET runtime framework, a Native AOT Kubernetes controller framework, and Roslyn source generators for EF Core migrations—while leading the ongoing strangler-fig modernisation of a .NET Framework 4.8 monolith on ~600 Azure Windows VMs (compute cost down 40%) with AI-native engineering workflows.

Core Competencies

Software Engineering (.NET): C#, .NET Framework/.NET Core (expert): runtime and framework design, Roslyn source generators, MSBuild tasks, EF Core, REST, gRPC, GraphQL; Rust (CLI tooling); TypeScript/JavaScript (working level), SQL (PL/SQL, T-SQL), PowerShell.

Kubernetes & Cloud-Native Platforms: Azure (AKS), Docker, Linux containers, Helm (umbrella charts), Istio, Gateway API, KEDA, resilience defaults (probes, PDBs, priority classes), custom CRDs and Native AOT controllers.

CI/CD, GitOps & Infrastructure as Code: GitOps (FluxCD), progressive delivery (Flagger, Kargo), 100% IaC (Terraform, Azure Service Operator; evaluated Crossplane), shift-left IaC security scans, Azure Key Vault, Azure DevOps.

Data, Messaging & Observability: Azure Service Bus, Redis, Elasticsearch, Oracle (incl. Advanced Queuing), MS SQL Server; Datadog, OpenTelemetry with Prometheus/Grafana.

AI-Native Engineering: agentic workflow design, decision-surfacing meta-harnesses with enterprise guardrails, multi-repo context/memory architecture, and automated fleet remediation.

Professional Experience

Cleverbit Software — Remote

Principal Software Engineer — Jan 2025 - Present

Promoted while leading Platform Foundations; IC since Jan 2026 teams merge; multi-tenant SaaS (NDA).

- Leading the ongoing strangler-fig modernisation of a .NET Framework 4.8 monolith on ~600 Azure Windows VMs onto AKS; compute cost down 40%, saving hundreds of thousands of dollars/month.
- Built an EF Core migrator automating DbContext wiring and migration-to-version maps on build (Roslyn source generator, MSBuild tasks), with CI guardrails catching stale generated files.
- Added staged cross-cluster promotion with Kargo on top of in-cluster Flagger rollouts, and implemented OCI container-registry caching, egress reduction and disaster-recovery preparation.
- Built a decision-surfacing meta-harness with enterprise guardrails and nested multi-repo Markdown memory, sustaining high agentic throughput (~65 PRs/week, self-reviewed before team/agent review).
- Orchestrated fleet-wide CVE remediation across the estate from a single intent prompt using coding agents (49 PRs, 190+ pipeline runs).

Platform Foundations Team Lead — Jan 2023 - Jan 2026

- Led the 5-person team that built the Linux-based Kubernetes platform: a multi-tenant AKS fleet of dozens of clusters (22 in production), with per-region VM/ARM SKU templates preventing holiday capacity exhaustion.
- Delivered 100% infrastructure as code (Terraform, Azure Service Operator) with shift-left IaC security scans in CI, GitOps on FluxCD, and progressive rollouts with Flagger.
- Introduced the runtime standard: a common .NET runtime framework (NuGet), feature flagging and config SDK adopted by all ~10 teams across dozens of services, paired with an umbrella Helm chart.
- Made resilience the default: standard probes, PodDisruptionBudgets and priority classes routinely self-heal failures including production node loss with zero service impact.

- Wrote a .NET Kubernetes controller framework (~3 lines of code per Native AOT CRD controller) and a standardised Rust health-check binary for non-web pods.
- Drove platform adoption across ~10 product and infrastructure teams and introduced cross-functional team structures.

Senior .NET Developer, then Innovations Team Lead Jan 2022 - Jan 2023

- Worked directly with the CEO to initiate Kubernetes adoption and the modernisation before it became an official programme.
- Founded and led the 4-person Innovations team running proofs of concept on 4-5 topics per week; its strangler-fig PoC became the core of the modernisation.
- Executed a rapid service-mesh migration from Linkerd to Istio after Linkerd failed, carrying mesh operational learnings into the platform.

Richmond Group UK (remote)

Cloud Senior Software Engineer Feb 2021 - Dec 2021

Moved into the parent company when its startup Tando LLC ended operations.

- Designed, built and maintained .NET microservices on Azure for brand websites and back-office apps, including a video conferencing platform and sentiment analysis of call-centre and video calls.
- Optimised database queries and built a custom anti-fraud tracking pixel (6.7 kB script, 30 kB async collector) delivering 179 ms p95 reports over 3 million records.

Cloud Software Engineer — Tando LLC (startup subsidiary) Aug 2019 - Feb 2021

- Built end-to-end .NET services on Azure, including a customer-agent video verbal-contract system with embedded fraud prevention and input stream rendering.
- Optimised the third-party affiliate lead-ingestion broker service and implemented a tiered affiliate bonus system.

Ziraat Teknoloji A.S. Istanbul, Türkiye

Core Banking Software Engineer Apr 2015 - Aug 2019

- Foresaw that the securities subsidiary's systems would fail under bank-wide request volume; built a decoupled, event-driven public offering application (.NET, on-premises) on an Oracle Advanced Queuing state machine.
- Handled 880,000 requests in 32 hours during Aselsan's TL 3 billion secondary public offering in 2018.
- Served as sole developer for the securities subsidiary at a national bank with 50+ million customers, shipping changes across all investment modules and implementing e-Defter (electronic ledger) for Ziraat's funds.

Freelance Ankara, Türkiye

Embedded Software Engineer Jan 2013 - Apr 2015

- Delivered embedded software on FPGAs, microcontrollers and microprocessors, plus MATLAB projects, for electronics customers.

Education & Languages

Ankara University Ankara, Türkiye

BSc in Electrical and Electronics Engineering Aug 2013

Languages: Turkish (native), English (professional proficiency; remote UK/international teams since 2019).

Location: Ankara, Türkiye; open to remote roles or EU/UK/US relocation (visa sponsorship required).