SINAN ÇAKAL

Backend Developer

+90 542 154 8596
sinan.cakal@protonmail.com
Kartal/Istanbul
www.snckl.com

SUMMARY

Backend engineer with hands-on experience building and owning production systems at scale. Currently the sole backend engineer at my company, responsible for 15 microservices across a full IoT platform. Strong focus on security hardening, performance optimization, and distributed systems design. Primary language is Go, with deep production experience in Node.js/TypeScript. I care a lot about getting auth and security right and understanding systems at a low level, not just making things work.

EDUCATION

BS. Computer Science
University of the People, USA
2024 - 2026

BS. Industrial Engineering (transferred)
Yeditepe University, Istanbul
2022 - 2024

Computer Programming, Associate Degree | GPA: 3.46
Antalya Bilim University, Turkey
2019 - 2021

SKILLS

- **Languages:** Go (primary), TypeScript, Node.js, Rust
- **Databases:** PostgreSQL (MVCC, vacuums, index strategies, query planning), MySQL, MongoDB, TimescaleDB, Redis
- **Messaging / Streaming:** RabbitMQ, NATS, MQTT
- **Auth / Security:** JWT, OAuth2, Argon2, MFA, OWASP, NIST, token lifecycle management, session management, brute-force protection, rate limiting, timing attack mitigation, encryption at rest and in transit. Designed and built production auth systems from scratch. Backend passed 4 external penetration tests.
- **Infrastructure / DevOps:** AWS (EC2, SES, S3, cost and resource optimization), GitHub Actions CI/CD with security scans, Docker, Nomad
- **Architecture:** Microservices, event-driven architecture, transactional outbox pattern, RESTful API design, fault-tolerant service design, distributed systems

EXPERIENCE

Back-End Developer - Octopus Digital Signage
Dec 2024 – Present

- Sole backend engineer responsible for maintaining, securing, and evolving 15 microservices across a full IoT digital signage platform built with Node.js and TypeScript
- Diagnosed and resolved a write throughput issue in an 18k writes/second service traced to MySQL binlog write amplification, rewrote the service to eliminate the bottleneck
- Identified and closed multiple security vulnerabilities across the platform including SQL injection, enumeration attacks, and DoS attack vectors through active code review and proactive hardening
- Reduced monthly infrastructure costs by 10% by identifying a redundant service, migrating all functionality to EMQX and raw SQL, eliminating the service entirely
- Rewrote heartbeat checking service from database polling to Redis, reducing latency across 40,000 screens to under 500ms and resolving recurring crashes that made the previous implementation non-functional
- Identified and proposed multiple architectural improvements including direct Azure presigned URL uploads with event-driven processing, queue-based audit logging with append-only storage, and serverless migration of low-traffic services, reducing service count and operational overhead
- Tech: Node.js, TypeScript, MySQL, MongoDB, Redis, MQTT, Azure

Backend Developer - Bitesup
2023 - Present (Side Project) - bitesup.com

- Designed and built the entire backend for a production application solo, supporting 2 mobile apps and 2 admin web panels
- Implemented a fully event-driven architecture with the transactional outbox pattern to guarantee reliable message delivery
- Wrote the full authentication and authorization system from scratch, including token management, session handling, and security controls
- Managed AWS infrastructure including cost monitoring, resource optimization, and deployment pipelines
- Tech: Node.js, TypeScript, Golang, TimescaleDB, Redis, MQTT, AWS, Cloudflare

LANGUAGES

- **Turkish: Native**
- **English: C1 (DET 115)**

SOCIAL

- **Linkedin:** linkedin.com/in/snckl
- **Github:** github.com/snckl

EXPERIENCE

Software Developer Intern - Pulur A.S.

Jun 2020 - Jan 2021

- Built desktop applications in C# and WinForms to digitize inventory management, purchasing, and stock tracking workflows

Data Entry Intern - Turkish Technic

Apr 2017 - Nov 2017

- Integrated and structured data from multiple sources for digital platforms, managed reporting and archiving processes

PROJECTS

MEV Attack Tracker (Go) | 2023

- Built an Ethereum MEV tracker in Go running against a self-hosted full node on SSD. Parsed pending and confirmed transactions in real time to detect frontrunning, sandwich attacks, and other MEV behaviors. Designed event streaming, data aggregation, and alerting modules. Currently inactive due to infrastructure costs.

Auth Provider (Go) | 2024 - In Development

2024 - Under development

- Security and performance focused authentication service built in Go with the Gin framework. Implements JWT, OAuth2, MFA, token rotation, brute-force and timing attack protections, audit logging, and encryption at rest and in transit. Follows OWASP and NIST guidelines throughout. Uses PostgreSQL, Redis, and AWS SES. Designed with an adapter pattern so components can be swapped without disrupting existing users. Includes comprehensive unit tests and detailed observability. Currently private.