

TANER GOZTOK

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SOFTWARE ENGINEER

Skilled Software Engineer with over 5 years of experience architecting high-performance observability and telemetry systems processing millions of data points daily. Proven track record of delivering mission-critical applications for aerospace and telecommunications sectors, with expertise spanning embedded systems development to cloud-native distributed architectures. Successfully reduced system response times by 40% and improved anomaly detection accuracy to 95% through innovative time-series analysis implementations. Demonstrated ability to lead complex technical projects from conception to deployment while mentoring development teams.

- Distributed Systems Architecture • Real-Time Data Processing • Performance Optimization
- System Observability • Embedded Systems Development • Time-Series Analytics • Anomaly Detection
- System Integration • Network Protocol Implementation

Languages: Java, Python

Web: React Native, JavaScript, HTML

Web Services: SOAP, REST APIs, SNMP, MQTT, TCP/UDP Socket Communication

Web/App Servers: Apache, Nginx, Embedded Linux Servers

Frameworks: Spring Framework, Qt Designer

Databases: MSSQL, MySQL, PostgreSQL, Microsoft SQL Server, ClickHouse, Redis, Elasticsearch

Design Patterns: Singleton, Factory, Builder, Observer, Repository, Adapter

SDLC: Agile

Tools: Docker, Apache Kafka, RabbitMQ, Debezium, Grafana, Prometheus, ELK Stack, Wireshark, Realterm, Matrix Profiling, Git (GitHub/GitLab), Maven

Platforms: Amazon Web Services (AWS), Linux, PetaLinux, FPGA Platforms

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

PROFESSIONAL EXPERIENCE

PROFEN (acquired by BAYKAR), Sisli, Turkey • 11/2024 – 01/2025

A technology company specializing in satellite communications, aerospace systems, and UAV solutions, contributing to Baykar's advanced drone platforms.

Software Engineer II

- Architected an observability system using Matrix Profiling and Amazon Chronos LLM, analyzing 1M+ time series points daily across 500+ devices with 95% anomaly detection accuracy and 15-minute early warnings.
- Designed a high-performance observability system handling 10,000+ concurrent SNMP polls with Java Virtual Threads, achieving 99.9% uptime, sub-second latency, and 60% lower memory usage.
- Successfully reduced incident response time by 40% and false positives by 60% through advanced motif discovery, identifying 200+ recurring patterns across network infrastructure monitoring systems.
- Developed a microservices architecture with Go and Python, creating independent data consumers (alarm, notification, etc.) that operate autonomously from a Kafka stream for enhanced system reliability and scalability.

Technologies Used: Java, Python, Go, Clickhouse, Kafka, Matrix Profiling, Amazon Chronos, Docker, REST, Git, Grafana, TDD, DDD.

PROFEN GROUP, Cankaya, Turkey • 08/2019 – 11/2024

Turkish technology company specializing in satellite communications, aerospace solutions and R&D-driven mission-critical software and telemetry systems.

Software Engineer

- Led development of a high-performance telemetry system using FPGA-generated OS (PetaLinux), implementing automated processes and user interfaces that enhanced system monitoring capabilities.
- Architected and deployed a scalable MQTT message processing system using Kafka Connect and Redis TimeSeries, optimizing real-time data handling and visualization through Grafana.

- Successfully transitioned a monolithic maintenance, repair and overhaul (MRO) application (VisioMAX) to microservices architecture, improving system scalability and maintainability.
- Designed and implemented a 24/7 web service (Mogan) that has tracked 50 million logs and automated 6,000 email notifications, reducing manual workload for 4 staff members.
- Created 54 device drivers and implemented automatic redundancy for two remote antenna sites, significantly improving reliability for Turkey's largest antenna/satellite user.

Technologies Used: Spring, Java, Python, Cstack, Go, Kafka, Rest, Swagger, RabbitMQ, Redis, PostgreSQL, Docker, Grafana, Git, REST, SOAP, GraphQL.

ACADEMIC PROJECTS

Maharishi International University (2025)

- **Enhanced RAG:** Architected a multi-document Retrieval-Augmented Generation system using Spring AI, querying PDFs, JSON, and other documents stored in separate Redis vector stores. Enabled cross-document referencing, source attribution, and confidence scoring for accurate synthesized outputs.
- **Serverless Dice Game:** Developed a full-stack, serverless dice game with a static frontend hosted on AWS S3/CloudFront. Integrated Cognito for JWT-based authentication, API Gateway and Lambda for backend processing, and DynamoDB for score persistence, ensuring secure and scalable deployment.

TOBB ETU (2022)

- **Design Patterns Implementation:** Led a team to build an FPS game prototype applying Factory, Observer, and Strategy patterns. Achieved 40% improvement in code maintainability and modularity while demonstrating practical OOP and software design principles.
 - **Amazon Product Reviews Analysis (Big Data):** Built a distributed data processing system with Apache Spark to analyze 20M+ Amazon reviews (1996–2018). Implemented pipelines for data cleaning and analysis, generating insights into long-term customer behavior.
 - **Reliable UDP Transport Protocol:** Developed a custom RTP over UDP with mechanisms to handle packet loss, delay, corruption, and reordering. Achieved 99.9% delivery reliability and 30% lower network overhead compared to TCP.
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PERSONAL PROJECTS

Real-Time Control System (AKS) 2024: Designed a multi-threaded real-time control simulation with modular architecture and a custom UDP protocol enabling real-time communication under 10ms latency. Supported dynamic module loading and heartbeat monitoring for fault detection, managed via a Qt-based real-time monitoring interface. Validated with Python simulators, achieving 100% stability during a 48-hour continuous operation test.

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 10/2027)

Maharishi International University, Fairfield, Iowa

Key Courses: Web Application Programming, Cloud Computing, Algorithms, Enterprise Applications

Bachelor Degree in Computer Engineering

TOBB ETU, Ankara, Turkey

CERTIFICATIONS

[Cisco CCNA \(Cisco Certified Network Associate\)](#) (02/2023)