Taleh Ibrahimli

Senior Backend/Platform Engineer · High-Load, Ultra-Low Latency Distributed Systems (Go/Java/Rust/C++, AWS)

in/talehibrahimli
+34600857686
talehibrahimli.com
contact@talehibrahimli.com
github.com/tislib

Barcelona, Spain · Open to relocation: Amsterdam, NL

Professional Summary

Senior Backend/Platform Engineer with 10+ years building high-throughput, high-load distributed systems and ultra-low latency services on AWS (Go/Java/Rust). Deeply experienced in CPU profiling with perf, low-level programming, and performance tuning. Built proprietary backtesting and market data systems; implemented low-latency data pipelines and signal evaluation. Strong fit for HFT/trading infrastructure and low-latency backend roles. Leadership experience and recent R&D in AI/LLM evaluation.

Skills

- **Programming Languages:** Rust, Go (5+ yrs), Java (8+ yrs), Kotlin, C/C++, TypeScript/JavaScript, Python
- **High Load, Ultra-Low Latency & Distributed Systems:** Distributed Systems, Goroutines/channels, lock-free patterns, memory/GC awareness (Go/Java), Netty/Reactor, async I/O, CPU profiling with perf, low-level programming, batching, backpressure
- **Market/Quant Platform Concepts:** Backtesting simulation, event/time-bar processing, rolling features, risk/position PnL calc, slippage/fees modeling, Monte Carlo basics, signal evaluation (precision/recall, drawdown), data alignment
- **Data & Streaming:** Kafka/Kinesis/SQS, REST/gRPC, Redis caching, PostgreSQL/MySQL, DynamoDB, OpenSearch/Elasticsearch; time-series design, OLTP/OLAP, batch/stream processing
- **Cloud & Platform (AWS):** VPC, EC2, ALB/NLB, Lambda, API Gateway, S3/CloudFront, RDS/Aurora, DynamoDB, ECR/ECS/EKS, EventBridge, SQS/SNS, Kinesis, Step Functions, OpenSearch; IaC: Terraform/CDK; cost/perf/resiliency
- **DevOps & SRE:** Kubernetes, Docker, Argo CD, Helm, Jenkins, CI/CD, observability (CloudWatch, X-Ray, Prometheus, Grafana, OpenTelemetry), blue/green & canary, incident response
- **Security & Compliance:** HSM, CloudHSM, KMS, PKI infrastructure, Cryptography, IAM, WAF, Cognito, OAuth2/OIDC, Secrets Manager; encryption at rest/in transit; GDPR/PCI awareness
- **AI/LLM & Evaluation:** RAG/agentic workflows (LangChain/LangGraph), vector search (pgvector/MongoDB), prompt guardrails, latency/quality/cost evaluation, telemetry for experiments

Experience

Senior Software Engineer & Team Leader — 2K GROUP — 07/2022 - Current

- Golang Developer, Backend Team Lead, and Chief Architect for EvenPlay (https://www.evenplay.com). Led design and delivery of high-throughput backend services and platform capabilities under tight deadlines.
- **Key Contributions:**
  - Designed and implemented core Go services with async I/O, caching, and efficient data models; emphasized latency, throughput, and observability.
  - Led and mentored backend team; established code quality gates, performance budgets, and incident playbooks.
  - Cloud & Orchestration: EKS (Kubernetes) on AWS, Terraform IaC; integrated SQS/SNS/RDS; tuned autoscaling and cost controls.
  - Built CI/CD with Jenkins; implemented GitOps (Argo CD, Helm) for repeatable, low-risk releases.
  - Python CV services (body/face detection) and robust face recognition integration.
  - Applied ML for gameplay parameter estimation and procedural level generation; instrumented experiments and telemetry.
  - Hands-on delivery of critical backend components; set performance SLOs and tracing/metrics dashboards (Prometheus/Grafana).
- **Impact:** Improved reliability and latency consistency; accelerated delivery cadence while maintaining code quality and traceability.

Senior Software Engineer & Team Leader — Billing Platform — 04/2021 - 07/2022

- Led security architecture at BillingPlatform, implementing AWS CloudHSM, KMS, PKI infrastructure, and Cryptography across microservices (Java/Kotlin, Spring Boot).
- **Key Contributions:**
  - **Security & HSM:** Designed and implemented application-level encryption using AWS CloudHSM and KMS for high-assurance data protection.
  - **PKI & Cryptography:** Established PKI infrastructure and cryptographic protocols for secure service communication.
  - **OAuth2/OIDC:** Rolled out centralized authentication across the platform; refined service boundaries and DDD patterns.
- **Impact:** Strengthened data protection/compliance and simplified authentication across the platform.

Senior Software Engineer & Team Leader — GoldenPay — 05/2020 - 05/2021

- Chief Architect and Team Lead for a modernized payment gateway. Focus on reliability, performance, and security.
- **Key Contributions:**
  - Drove migration from monolith to microservices (Java/Kotlin) with resilient communication and observability.
  - Performance/security improvements across the transaction path; better throughput and defensibility.
  - Mentored developers and coordinated cross-functional delivery.
- **Impact:** Improved system throughput and reliability; reduced operational risk and time-to-market.

Software Engineer/Architect — Crossover — 04/2017 - 12/2019

- Aurora — CxProcess & M1 AlertFind: modernization of Java platforms for process orchestration and alerting.
- **Responsibilities:**
  - Introduced a higher-level API layer to decouple UI and services; refactored services to new contracts.
  - Built an Angular front-end and integrated with modernized REST APIs.

- **Impact:** Reduced coupling, improved maintainability, and enabled incremental migration.

Java backend developer   [Apexx](#)   11/2015 - 04/2017
- **Impact:** Contributed to core backend stability and reliability; improved code quality in critical modules.

Java backend developer   [Baku State University](#)   01/2014 - 11/2015
- E-University — Student & Education Management System covering full academic lifecycle.
- **Tech stack:** Monolithic Java backend, PostgreSQL database, Sencha with GWT/GXT for the UI.
- **Impact:** Gained deep domain knowledge in complex business workflows and reporting pipelines.

Freelancer   03/2011 - 01/2014
- **Impact:** Delivered end-to-end solutions for small clients with consistent, reliable delivery and repeat engagements.

AI R&D Highlights
The following represent prototypes/experiments and proofs-of-concept (not production systems).
- Designed RAG/agentic workflows with LangGraph/LangChain and a custom workflow kernel; explored vector stores (pgvector/MongoDB vector), hybrid retrieval, and re-ranking.
- Built experiment evaluation harness (scenario-based A/B, latency/quality/cost) with telemetry (OpenTelemetry/Prometheus).
- Applied safety/guardrails thinking to model-driven workflows; analyses useful for signal quality/robustness in trading research.

Open Source
- **https://github.com/tislib/roda-state:** Zero-copy, lock-free multithreaded pipeline in Rust designed for ultra-low latency environments. By heavily profiling the CPU architecture, it bypasses standard multi-threading performance traps to strictly saturate the L1 cache bandwidth.
  - Engineered a zero-copy, lock-free multithreaded pipeline in Rust, achieving a peak algorithmic throughput of 58.7 million elements per second (MEPS) in CPU-bound stateful workloads.
  - Processed 24 million real-world MBO market data events with an unloaded median latency of $1.2\mu s$, completely decoupling disk I/O bottlenecks from the algorithmic hot path.
  - Defeated cross-core MESI protocol overhead by implementing dynamic block processing (read_window), reducing L1 cache misses to 0.73% and boosting IPC to 1.93.
- **https://github.com/apibrew/apibrew:** Low-code platform to build REST APIs from UI
- **https://github.com/tislib/logi:** DSL definition system for custom language parsing
- **https://github.com/tislib/download-delegator:** Parallel web downloader for EC2/Lambda bulk fetches

Certifications
- AWS Certified Solutions Architect – Professional (in-progress, scheduled)
- Certificate: Semi-Finalist of ACM Programming Contest in Georgia, 2013
- Certificate: High Achievement certificate of ACM Programming Contest, 2013

Education
- Bachelor's degree in Computer Science and Applied Math — Baku State University (2010 - 2014)