

# Suleyman Musayev

## Staff Backend Engineer · Distributed Systems & Scale

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### SUMMARY

Sole architect of a distributed authentication and identity platform at SSL.com, a top-10 global PKI vendor — serving tens of thousands of daily users and enabling **10x growth** in digital certificate issuance. Strong fundamentals in distributed systems, performance, and defense in depth. Open to senior and staff backend engineering roles at scale.

### EXPERIENCE

#### Software Engineer · SSL.com

Aug 2023 — Present

Remote · top-10 global PKI vendor · sole architect of auth & identity platform

- **Sole architect** of a high-scale distributed authentication and identity platform serving tens of thousands of daily users; enabled **10x growth** in TLS, code signing, and identity certificate issuance.
- Defined the architecture for a distributed system of authentication services, API servers, web applications, and audit-logging pipelines; **led the redesign of the auth engine** for high-volume load and long-term scalability.
- Built a fully automated certificate issuance pipeline and complex API endpoints for certificate lifecycle management at scale.
- Implemented **OAuth 2.0, OIDC, SAML, and session-based** authentication with cross-domain flows and external identity provider integrations.
- Designed fraud detection combining third-party services with custom analytics on behavioral patterns, IP intelligence, device fingerprinting, and CVE-aware protections; **cut SMS pumping fraud loss to zero** and defended against advanced and state-level threat actors.

#### Software Engineer · Midstay

Aug 2022 — Jan 2024

Remote · early engineer, 5-person team, ~1k DAU consumer product

- Reduced backend latency by up to **5x** through query optimization, indexing, and caching strategy; improved user retention by **15%**.
- Shipped 4 major product features in 12 months; led incident response against advanced attackers. Final 5 months were a contract wind-down during transition to SSL.com.

### SKILLS

LANGUAGES	Ruby, JavaScript, Python, SQL, C, C++
BACKEND	Ruby on Rails (4–8), REST API design, Sinatra, Sidekiq, background processing
DISTRIBUTED SYSTEMS	Service decomposition, message queues, audit pipelines, capacity planning, load balancing, query optimization, caching strategy
DATA	PostgreSQL, Redis, indexing strategy
AUTH & IDENTITY	OAuth 2.0, OpenID Connect (OIDC), SAML, JWT, Session-based, mTLS, SSO, Cross-domain auth
SECURITY	PKI, Certificate Lifecycle, Fraud Detection, Behavioral Analytics, Device Fingerprinting, MPIC, Threat Modeling
INFRASTRUCTURE	Docker, Linux, Nginx, AWS, GitHub Actions, CI/CD

### OPEN SOURCE & LANGUAGES

**Maintained gems:** omniauth\_oidc (OIDC for Microsoft Entra & Cloudflare), ip\_geo\_lookup, balloon\_hashing, yescrypt. Contributor to Authlogic and openmpic.

**Languages:** English (Professional) · Russian (Native) · Turkmen (Native) · Turkish (Conversational)