

Suleyman Musayev

Senior Backend Engineer · Auth, Identity & Distributed Systems

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· Remote · UTC+5

SUMMARY

Senior Backend Engineer with deep expertise in Ruby on Rails, authentication systems, and security engineering. Sole architect of the authentication and identity platform at SSL.com (top-10 global PKI vendor) supporting tens of thousands of users and enabling 10× growth in digital certificate issuance. Combine production IAM/PKI experience with a track record of shipping fast and improving system performance up to 5×. Open to senior and staff backend, security, and IAM roles.

EXPERIENCE

Software Engineer · **SSL.com**

Aug 2023 — Present

Remote · top-10 global PKI vendor

- Sole architect and lead engineer of a high-scale authentication and identity platform supporting tens of thousands of daily users; enabled 10× growth in TLS, code signing, and identity certificate issuance.
- Designed and implemented authentication using **OAuth 2.0, OpenID Connect (OIDC), SAML, and session-based** architectures, including secure cross-domain flows and external identity provider integrations.
- Built a fully automated certificate issuance pipeline and complex API endpoints for certificate lifecycle management and identity verification workflows.
- Defined the architecture for a distributed system of authentication services, API servers, web applications, and audit-logging pipelines; led the redesign of the authentication engine for high-volume load and long-term scalability.
- Designed fraud detection and abuse prevention 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.
- Implemented protections against account takeover, replay attacks, session hijacking, and internal threats including credential leaks and privileged misuse.

Software Engineer · **Midstay**

Aug 2022 — Jan 2024

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

- Reduced backend latency by up to **5×** through query optimization and caching, lifting end-to-end responsiveness across the product.
- Improved user retention by **15%** through targeted performance and product improvements.
- Shipped **4 major product features in 12 months**, supporting multiple product pivots with rapid iteration.
- Identified and mitigated critical security vulnerabilities; led incident response against advanced attackers and implemented safeguards to prevent recurrence.
- Final 5 months were a contract wind-down with gradual transition of responsibilities to the rest of the team while ramping up at SSL.com.

Quantitative Trading Operations · Private Trading Firm

Mar 2020 — May 2021

Built and managed automated hedging strategies across brokers, markets, and instruments

- Reduced hedging costs by up to **35%** through strategy optimization and execution improvements across multiple brokers and instruments.
- Managed a large leveraged portfolio with rigorous risk control and capital efficiency.
- Built strong intuition for risk modeling and decision-making in high-stakes environments — a mindset I now apply directly to security engineering.

SKILLS

LANGUAGES	Ruby, JavaScript, Python, SQL, C, C++
FRAMEWORKS	Ruby on Rails (4–8), Sinatra, Stimulus, Hotwire, Turbo
DATA	PostgreSQL, Redis, Sidekiq
AUTH & IDENTITY	OAuth 2.0, OpenID Connect (OIDC), SAML, JWT, Session-based, mTLS, SSO
SECURITY	PKI, Certificate Lifecycle Management, Fraud Detection, Device Fingerprinting, Behavioral Analytics, MPIC, Account Takeover Defense
INFRASTRUCTURE	Docker, Linux, Nginx, AWS, GitHub Actions, CI/CD

OPEN SOURCE

omniauth_oidc — github.com/msuliq/omniauth_oidc

OmniAuth strategy for OpenID Connect with first-class support for Microsoft Entra ID and Cloudflare Access.

ip_geo_lookup — github.com/msuliq/ip_geo_lookup

Lightweight IP geolocation lookup for Ruby — fraud detection, access control, and request enrichment.

balloon_hashing & yescrypt

Ruby implementations of memory-hard password hashing algorithms (Balloon & Yescrypt). Contributor to Authlogic and openmpic.

LANGUAGES & CERTIFICATIONS

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

Certifications: Bloomberg Market Concepts (BMC)