

Rebecca Kukshtel

Software Engineer · Auth, Identity & AI Agent Security

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SUMMARY

Backend engineer with 11 years of experience, the last 5 building authorization and identity platforms at Netflix and Brex. Most recently helped ship Netflix's production guardrails for AI agents: a deny-only policy layer that narrows what agents can do and never grants access, enforcing ~1.8M decisions a day across ~1,000 services within a month of launch. I own high-traffic, globally distributed systems end to end, from design and migration through on-call, and I care about making secure access the easy, self-service path.

EXPERIENCE

Netflix · Senior Security Software Engineer (L5), Access Control Engineering 2024 – 2026

- Core engineer on Netflix's authorization layer for AI agents, a deny-only Cedar policy service that restricts what agents can access. Led the Java, Go and Python clients, enforcement and fail-open/closed modes, and the multi-region rollout, scaling from pilot to ~1.8M enforced decisions/day across ~1,000 apps and ~1,100 agents in one month.
- Added agent identity claims to the platform's auth context and built decision logging for agent access (Iceberg tables with schema provenance, sampling and a kill switch, CLI tooling, adoption dashboard) so security teams could audit agent behavior and track rollout.
- Engineer on a globally distributed authorization platform making ~13B decisions/day across ~7,800 apps, evaluated locally in tens of microseconds. As release manager for the agent deployed beside every app, introduced containerized test infrastructure, performance baselines, canaried rollouts and an AI-assisted release gate.
- Resolved a fleet-wide distributor failure from a production incident by designing a streaming gRPC API, eliminating message-size errors and CPU paging, and added retry-storm protection.
- Led a live migration of a high-traffic access-management client onto the authorization platform, shadow-testing every call and cutting over behind feature flags.
- Designed and launched a service that answers "who can access this?" across ~199k AWS IAM role policies by expanding group membership at scale (Java, Temporal). Replaced an hours-long daily scrape of ~6M authorization records with a real-time and batch export that completes in ~5 minutes.
- Modeled observability cost for the platform, identifying ~\$445k/yr in savings and driving a decision-log redesign; aligned the metric definition a company-level goal was measured against with the data science org.

Brex · Senior Software Engineer 2021 – 2024

- Designed a Kotlin authorization library (RBAC and PBAC) and drove adoption across 71 microservices through a paved-road "golden path," with P95 permission checks at 17ms.
- Rebuilt the roles and access system and migrated off the legacy one at 99.99% availability, serving millions of calls a day at P95 18ms.
- Shipped OAuth API token scoping, token exchange and revocation for the public Team API, documented at developer.brex.com.
- Tech lead for customer-facing custom roles, partnering with Product and Design. Planned and led a phased caching rollout (sidecar, then centralized Redis) while mentoring 3 engineers.

Betterment · Lead Software Engineer

2018 – 2021

- Architected instant transfers for Cash Reserve and optimized cash and interest allocation across \$100M+ in deposits.
- Built the mobile Rewards & Referrals program, growing mobile-first signups 14%.

Earlier

2015 – 2017

ThoughtWorks, Developer Consultant (mobile and security in fintech) · NowThis Media, Backend Engineer

SKILLS

Identity & auth	OAuth 2.0, OIDC, SAML, SCIM, JWT, token exchange, SSO
Authorization	RBAC, ABAC/PBAC, fine-grained authorization (ReBAC), Cedar, policy-as-code, AWS IAM, least privilege
AI agents	Agent identity, non-human identity, agent guardrails, MCP, A2A, Claude Code
Distributed systems	Multi-region and global writers, replication, read replicas, sharding, load testing, canary and staged rollouts
Languages	Java, Go, Kotlin, Python, SQL; some TypeScript and Rust
Infrastructure	gRPC, REST, GraphQL, PostgreSQL, Redis, Temporal, Apache Iceberg, dbt, AWS

EDUCATION

Williams College, BA American Studies, cum laude

Georgia Tech, MS Computer Science (Machine Learning), incomplete: left in 2020 due to COVID-19, 4.0 GPA in completed courses

Bradfield School of Computer Science, architecture, operating systems, networking, distributed systems

Flatiron School, software engineering