

# Ayush Goel

## Senior Software Engineer

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### EXPERIENCE

#### INTUIT

##### SENIOR SOFTWARE ENGINEER

08/2024 – Present | San Diego, CA

- **Owned the end-to-end design and delivery of mobile Driver's License (mDL)** as an **account recovery authenticator**, partnering with backend and native mobile teams to launch across **five states (CA, GA, CO, OH, IL)** and expanding supported recovery options for high-assurance users.
- **Designed and implemented Redis caching strategy** for temporal authentication data after identifying it as a **reliability and cost risk**; reduced DynamoDB write traffic by **~75% in production (98% in pre-prod)**, mitigated customer impact from AWS system errors, and delivered **~\$10K/month in recurring infrastructure savings**.
- **Led cross-team delivery of Credit Karma sign-in and provisional account initiatives**, rapidly ramping into Sign-In Orchestration (SIO) and owning Front Door experience work; unblocked reliability and CI issues that enabled on-time launch and contributed to **\$100M+ in downstream revenue impact**.
- **Set and executed operational reliability strategy** for Credential Service as service owner, migrating production traffic to a dedicated AuthN cluster with **zero customer impact**, strengthening observability, and helping deliver a **full tax season with no major outages** across AuthN services.
- **Drove architectural and platform-level improvements** across Identity by identifying systemic reliability and data-consistency risks, implementing preventative fixes (caching for resiliency), and reducing recurring operational and infrastructure costs.
- **Championed adoption of AI-assisted development workflows**, personally demonstrating productivity gains by compressing multi-person sprint efforts into single sprint delivery; influenced broader team experimentation with AI to increase delivery velocity and quality.
- **Served as primary on-call responder for high-severity incidents**, leading deep root-cause analysis across service mesh, AWS infrastructure, and cross-region dependencies; prevented repeat incidents through structural fixes rather than point solutions.

##### SOFTWARE ENGINEER II

07/2022 – 08/2024 | San Diego, CA

- **Service owner for a Tier-1 Credential Service** (Kotlin, Spring Boot), supporting **hundreds of millions of users** via DynamoDB-backed OpenAPI REST and GraphQL APIs; deployed on AWS EKS with ArgoCD-managed canary.
- **Led large-scale Identity 2.0 migration**, ensuring **100% on-time completion** by migrating **620M identities, 2.5B credential records, and 21B user attributes**; personally resolved **~10% of complex edge cases** via custom scripts, enabling safe shutdown of legacy 1.0 systems.
- **Reduced infrastructure spend by \$50K/month** by identifying inefficiencies and implementing cost-optimization strategies across Credential Service and eventing pipelines without sacrificing reliability or latency.
- **Improved developer productivity and system reliability** by redesigning CI/CD pipelines (Jenkins), introducing improved autoscaling, and refactoring service architecture to reduce operational burden and failure modes.
- **Owned and delivered core APIs for the Identity 1.0 → 2.0 transition**, coordinating across teams to unblock dependencies and accelerate strategic platform initiatives.

##### SOFTWARE ENGINEERING INTERN

05/2021 – 08/2021 | Remote

- **Designed and implemented CI/CD patterns for Identity 2.0 services**, leveraging ArgoCD, Jenkins, Terraform, Kubernetes, canary deployments, and service mesh to improve deployment safety and confidence.
- **Analyzed deployment metrics across multiple teams** to identify velocity bottlenecks; drove Agile process improvements and delivered proof-of-concepts that increased developer confidence and reduced deployment friction.

##### ROCHESTER INSTITUTE OF TECHNOLOGY, RESEARCH SOFTWARE ENGINEER

05/2020 – 05/2021 | Rochester, NY

- **Developed ASSERT**, a Java/Python application for synthesizing and analyzing cyberattack behavior models to improve prediction accuracy.
- **Refactored a research prototype into a production-ready, containerized system**, improving maintainability and deployment consistency.
- **Built dynamic visualization dashboards** using Python, Dash, and Plotly to analyze and communicate model outputs to researchers.

##### INTUIT, SOFTWARE ENGINEERING CO-OP

05/2019 – 12/2019 | San Diego, CA

- Backend engineer on the Identity Platform; **migrated REST services from Spinnaker to Docker/Kubernetes with zero downtime**.
- Built tooling to semi-automate migrations for other teams, reducing duplicated effort and accelerating platform adoption.

### EDUCATION

##### M.S. IN COMPUTER SCIENCE, ROCHESTER INSTITUTE OF TECHNOLOGY

2021 – 2022 | Rochester, NY

GPA: 4.00

##### B.S. IN COMPUTER SCIENCE, B.S. IN COMPUTATIONAL MATHEMATICS,

2017 – 2021 | Rochester, NY

##### ROCHESTER INSTITUTE OF TECHNOLOGY

GPA: 3.79

### SKILLS

Kotlin • Java • Python • SQL • Groovy • DynamoDB • Redis • Argo CD • git • Spring Boot • Maven • Resilience4j • OpenAPI • GraphQL • Swagger • Wavefront • AWS CDK • Terraform • Gatling • Docker • Kubernetes • Jenkins • Splunk • DynamoDB • Confluence • Tableau • LocalStack • S3 • Databricks