

# Akash Ungarala

[akash.ungarala@gmail.com](mailto:akash.ungarala@gmail.com) | [linkedin/in/akashungarala](https://linkedin/in/akashungarala) | [github/akashungarala](https://github/akashungarala) | [akashungarala.com](http://akashungarala.com) | Charlotte, NC

**Senior Software Engineer** with 9+ years building high-scale distributed systems across gaming, fintech, media, and ad-tech. Expertise in Python and TypeScript, architecting real-time backend platforms processing billions of events. Track record of driving technical decisions, improving system reliability, and mentoring engineers.

## Selected Highlights

- Architected real-time AI/human captioning platform at **Fox Corporation**, reducing live-stream failover from 3 minutes to <5 seconds for 8M+ concurrent viewers
- Drove observability standardization across 50+ engineering teams at **Fidelity Investments**, reducing MTTD by 40% through an OpenTelemetry-based SLO platform
- Maintained 99.99% uptime for **Niantic's** AdTech platform, processing 2B+ daily events for Pokemon GO's 80M+ monthly users
- Re-architected identity resolution system at **Adara Inc**, scaling from 5K to 20K+ writes/sec while reducing infra costs by 30%

## Technical Skills

**Languages & Frameworks:** Python (FastAPI, Flask, Django), TypeScript/Node.js (Express), Async (Celery, asyncio), Go (familiar)

**Distributed Systems:** Microservices, Event-Driven Architecture, Message Queues (RabbitMQ, Kafka, Pub/Sub), Protocol Buffers, gRPC

**Cloud & Infra:** AWS (Lambda, API Gateway, RDS, DynamoDB, S3, SNS, CloudWatch), GCP (GKE, Spanner, Pub/Sub, BigQuery, Firestore)

**Platform & DevOps:** Docker, Kubernetes, Helm, Terraform, CI/CD (GitHub Actions, GitLab CI, Spinnaker), System Design

**Data & Observability:** PostgreSQL, MongoDB, Redis, Cloud Spanner, OpenTelemetry, Prometheus, Grafana, SLOs/SLIs

## Experience

**Fox Corporation | Senior Software Engineer** (Contract) | Remote | Sep 2024 – Dec 2025

- Designed and implemented fault-tolerant captioning orchestration layer serving 8M+ concurrent viewers, reducing failover time from 3 minutes to <5 seconds through predictive routing and automated provider switching
- Architected high-concurrency WebSocket gateway handling 10K+ simultaneous connections for real-time audio transport and caption exchange with sub-100ms p99 latency
- Led technical design reviews and mentored 2 engineers on distributed systems patterns, improving team velocity by 25%
- Established CI/CD with Semgrep security scanning and 90%+ test coverage requirements, reducing production incidents by 60%

**Fidelity Investments | Senior Software Engineer** (Contract) | Hybrid | Oct 2023 – Jul 2024

- Designed centralized SLO tracking platform on AWS Lambda processing metrics from 200+ services, reducing Mean Time to Detection by 40% across 50+ engineering teams
- Built real-time observability dashboard integrating OpenTelemetry traces from 500+ microservices, enabling proactive breach detection and automated alerting via SNS
- Led proof-of-concept for high-cardinality metrics using Amazon Managed Prometheus, reducing production alert noise by 50% and saving 20 engineering hours/week
- Drove Terraform standardization across 12 observability services, reducing deployment failures by 70% through enforced CI/CD

**Niantic Inc | Software Engineer II** | Sunnyvale, CA | Nov 2021 – Aug 2023

- Owned AdTech backend platform on GCP serving location-based ads and promotions for Pokemon GO's 80M+ MAU, maintaining 99.99% uptime while processing 2B+ daily events
- Designed event-driven pipeline using Celery and Cloud Spanner to process real-time ad telemetry, reducing p99 latency from 800ms to 200ms for in-game reward delivery
- Optimized Spanner query patterns and indexing strategy, cutting analytics query latency by 60% for 50M+ daily events
- Reduced production defects by 40% with TDD and hardened CI/CD gatekeeping; mentored junior engineers on testing strategies

**Adara Inc | Senior Backend Engineer** | Palo Alto, CA | Feb 2019 – Nov 2021

- Re-architected identity resolution services using Python and Pub/Sub, scaling throughput 4x (5K to 20K+ writes/sec) while reducing infrastructure costs by 30%
- Engineered event-driven data pipelines processing 5TB+ daily via BigQuery & PostgreSQL, powering 200+ enterprise integrations
- Reduced query latency by 30% through database optimization & implemented RBAC security using Auth0 for partner API access
- Designed Flask-based microservice templates adopted company-wide, reducing service bootstrap time from 2 weeks to 2 days

**Google Inc | Support Engineer** (Contract) | Mountain View, CA | Oct 2017 – Dec 2018

- Built Dialogflow conversational AI prototypes deployed across 400M+ Google Assistant devices, collaborating with product teams to define integration patterns

**Infosys Ltd | Systems Engineer** | India | Feb 2014 – Jul 2015

- Built enterprise Django portal with MySQL backend serving 10K+ users; first production engineering role

## Education

Master of Science in Computer Science | University of North Carolina at Charlotte | Aug 2015 – Dec 2016