TARUSH SINHA

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EXPERIENCE

Citadel Health   Aug 2025 – Present

Technical Consultant

- Prototype telehealth flows with GCP Vertex AI Agent (LLM) and Dialogflow CX (NLM) for virtual care capabilities
- Provide technical guidance on data security and compliance requirements to support vendor selection process

TikTok U.S. Data Security, Inc.   Oct 2021 – Jun 2025

Research & Development Engineer — TikTok Data Platform

Data Ingestion Product Owner   Jan 2022 – Jun 2025

- Owned the Data Ingestion roadmap: drove quarterly planning, prioritization and alignment across Ads, Compliance, Infrastructure, Platform, Product, Recommendation, and Security teams domestic & international
- Coordinated execution across the U.S., i18n, and China engineering teams to deliver ingestion features, maintain global platform consistency, and resolve cross-team blockers and critical ingestion issues
- Onboarded multiple new business lines including Lemon8, Pangle, & StemDrop to the ingestion platform, translating ambiguous requirements into concrete ingestion specs and scalable implementation plans

Senior Site Reliability Engineer (SRE)   Mar 2023 – Jun 2025

- Built a Go-based CLI tool to automate creation of new data flows, reducing request turnaround time by 90%
- Created a Data Ingestion health dashboard with RAG scoring and component-specific KPIs, enabling SREs to rapidly monitor degradation points and giving leadership real-time analytics on platform health
- Designed and implemented a comprehensive testing architecture for the Data Ingestion Platform, introducing integration tests for the core ingestion services and supporting validation for three tiers of Flink ETL jobs
- Developed a Spring Boot job autoscaling feature for Firefly (BitSail-based data integration engine), improving resource utilization under capacity constraints and fluctuating traffic
- Implemented event governance controls by introducing event sampling (reducing key topic volume by 40%) and building dynamic rule-banning logic in the ETL engine to prevent unexpected traffic bursts
- Improved reliability of a critical ingestion Thrift service (supporting Law Enforcement & Debug teams) by 87%, and developed a feature for validation of L4 data requests
- Rebuilt the Data Ingestion Platform in a backup data center for disaster recovery and developed a data-loss recovery runbook to support active-active failover
- Re-engineered the Data Ingestion Platform for efficiency and scalability by (i) shifting root traffic from NSQ & Kafka to RocketMQ, and (ii) optimizing routing strategies to cut Kafka cluster pressure by 60%

Tech Lead   Oct 2022 – Jan 2024

- Accelerated global data stream processing performance by 10x and reduced CPU utilization by 55% across 100+ jobs by building and delivering an efficient unified streaming engine
- Conducted an end-to-end 'Software Components Security Controls' Audit and implemented strict Data Sharing Guidelines to ensure TikTok's commitment to the U.S. Government and the People of the United States
- Established a global Change Control Management Process, ensuring service version drift < 2 months across all regions and deployments
- Initiated and led the strategic spin-off of the Data Ingestion team, enabling specialization and faster execution; grew team size 3x while maintaining a 75+ NPS score
- Shortened onboarding 4x from 3 months to 3 weeks by building a comprehensive wiki, translating documents, and coaching new hires
- Trained a Singapore-based global SRE team to handle global on-call; partnered with a domestic 24/7 Network Operation Center (NOC) to take over L1 support thus freeing up ~75% of engineering time for development

Site Reliability Engineer (SRE)   Oct 2021 – Mar 2023
- Maintained platform stability (as part of global on-call), leading incident response across Kafka, Flink, YARN, and HDFS environments and ensuring 99.99% SLA adherence for downstream systems
- Reduced core ingestion alerts by 85% through implementation of a pod auto-migration mechanism
- Unified Ingestion & Streaming alarm data into a data warehouse and developed FlinkSQL/CronJob-powered auto-check and auto-tune tooling to improve daily signal-to-noise ratio by 30%

Infosys, Ltd.   Oct 2020 – Oct 2021
Associate
- Boeing: Cloud DevOps Engineer for Airplane Telemetry Predictive Analytics Platform. Tech Stack: ELK, GCP
- Nike: Java Full Stack Engineer. Tech Stack: Java(Spring Boot), Angular, REST, TypeScript, Splunk

Glassbeam, Inc.   Jun 2013 – Jul 2020
Associate
- Automated tagging of 35K+ knowledge base entries using Python with call-to-actions for live classification use
- Managed the SFDC environment, supported sales & field ops, and generated 5K+ industry specific leads

University of Maryland Software Engineering Capstone: Glassbox   Aug 2019 – Dec 2019
Software Engineer (SWE)
- Designed & deployed a tool using Python, GoLang & RabbitMQ to research and build profiles of malware patterns and their respective system calls. The tool accurately identified 85%+ of malware from the test corpus
- Built a multi-functional API & ability to use predictive tool with provided/plug-in Machine Learning modules

Thales e-Security   May 2017 – Aug 2017
Software Engineering (SWE) Intern
- Enabled customers to migrate to AWS/Google Cloud through a security layer and work on encrypted instances

GroundTruth   May 2016 – Aug 2016
DevOps, Site Reliability Engineering (SRE) Intern
- Built a scalable monitoring solution for user, system and network telemetry, using SaltStack for automation, Slack for alerting, Terraform security groups for access control, and Grafana for visualization

Electronic Arts, Inc.   May 2015 – Aug 2015
DevOps, Software Engineering (SWE) Intern — EA Digital Platform (EADP)
- Built a hardware scalable logging tool using Docker, Redis, and Elasticsearch to capture critical commerce and identity data and visualized metrics through Grafana

EDUCATION

B.S. Computer Science, University of Maryland, College Park   Aug 2020

SKILLS

Technologies: Python, Java, Go, Bash, Ruby, C, JS, TypeScript, AWS, GCP, Docker, Kafka, Flink, Kubernetes, SQL
Certifications: ICAgile Certified Professional - Agile Team Facilitation, Infosys Certified Java Full Stack Developer
Trilingual: English, Hindi, Mandarin