Ted Strall

Lake Zurich, IL - ted@strall.com - strall.com - usekarma.dev - github.com/usekarma - linkedin.com/in/tedstrall

Professional Summary

Backend and infrastructure-focused software engineer with a track record of building scalable systems, automating deployment pipelines, and architecting modular infrastructure on AWS. Creator of Adage (config-first Terraform framework) and Karma (graph-based change tracking for infrastructure). Experienced with Python, Java, SQL, Terraform, and CI/CD systems. Passionate about traceable system design, cloud-native tooling, and evolving toward ML platform engineering.

Experience

Founder & Principal Engineer

strall.com / Adage Infrastructure Studio - Lake Zurich, IL | Mar 2025 - Present

- Built Adage, a Terraform-based system for deploying modular, multi-account AWS infrastructure with runtime-aware parameter management, identity-based access controls, and controlled switchover strategies.
- Developed Karma, a backend system for tracking infrastructure state and lineage using Amazon Neptune, enabling queryable graph-based visibility and dependency resolution across services and environments. Designed with ML extensibility in mind, including lineage modeling, anomaly tracking, and graph-based queryability.
- Deployed strall.com, usekarma.dev, and adage.usekarma.dev as production-grade, serverless web applications using S3, CloudFront, ACM, Lambda, and Route 53 with full CI/CD pipelines.
- Created and maintain the github.com/usekarma GitHub organization, which hosts open-source infrastructure tools including Adage and Karma.
- Designed APIs and configuration schemas to enable runtime promotion, rollback, and traceability - key backend components for platform resilience and observability.

Data Engineer / DevOps Architect

Sparksoft (via TISTA) - Remote | Jul 2023 - Feb 2025

- Automated infrastructure delivery across development, staging, and production environments using Terraform, Jenkins, and modular templates aligned to organizational security controls.
- Led the migration of high-volume data systems from Oracle to Aurora PostgreSQL, including schema conversion, DMS replication, validation automation, and performance tuning.
- Built secure, identity-aware deployment flows using AWS IAM, SSM, Secrets Manager, and centralized

configuration files.

- Maintained infrastructure components with high uptime and availability; implemented runtime config switching and validated deployments to ensure service resilience and auditability.

- Reviewed and refactored shared Terraform modules to enforce consistency, reduce duplication, and improve reliability across distributed teams.

Senior Data Engineer / DevOps Specialist

TISTA Science and Technology - Remote | Jun 2019 - Jul 2023

- Designed and deployed end-to-end automation for infrastructure provisioning, data pipelines, and environment configuration for federal healthcare systems.

- Implemented reusable Terraform modules and CI/CD workflows for AWS-based workloads; integrated Jenkins with Secrets Manager and Parameter Store for secure deployments.

- Led cross-team efforts to standardize environment bootstrapping, including account identity bindings and runtime parameter management.

- Developed internal tools to track database migrations, enforce versioning, and validate application states across development and QA systems.

- Advocated for modular architecture and reproducible infra environments across multiple program areas.

Earlier Engineering Roles

Various companies | 2008 - 2019

- Held multiple engineering roles focused on backend development, data processing, infrastructure automation, and deployment tooling across industries including healthcare, higher education, and e-commerce.

- Designed APIs and services using Java and Python; worked extensively with Oracle and PostgreSQL for data-heavy systems.

- Built CI pipelines, automated operational tasks with shell scripting, and contributed to early adoption of Terraform and AWS.

- Developed and maintained Hadoop-based batch processing workflows for large-scale data analysis and reporting across multiple systems.

- Supported large-scale production environments, including one of the busiest e-commerce platforms in the U.S.

- Implemented and optimized NLP pipelines using Solr and custom Java text processing tools. Collaborated cross-functionally with operations, database teams, and business stakeholders to ship resilient software

under real-world constraints.

Skills

Languages: Python, Java, HCL, Bash, SQL, Golang (learning)

Tools: Terraform, Jenkins, Docker, GitHub Actions, Hadoop

Cloud: AWS (S3, Lambda, IAM, SSM, CloudFront, Route 53, ACM, API Gateway)

Practices: CI/CD, distributed systems, identity-based security, runtime safety, modular deployments, secrets management, service orchestration, API design, infrastructure resilience, graph modeling, ML extensibility

Education

University of Illinois - B.S., Software Engineering

DePaul University - M.S., Predictive Analytics (incomplete)

Completed all core and advanced courses; 3 courses short of degree