Ted Strall

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Professional Summary

Cloud Infrastructure Engineer with a focus on scalable system design, automated deployment pipelines, and secure AWS architecture. Experienced with Terraform, Kubernetes, Jenkins, and modern AWS services including Lambda, API Gateway, Fargate, EKS, IAM, Cognito, and RDS. Support developer workflows with CI/CD, observability, and secure, automated infrastructure. Creator of Adage and Karma, open-source frameworks for modular infrastructure and graph-based system tracking.

Skills

Cloud: AWS (Lambda, Fargate, ECS, EKS, EC2, RDS, Aurora, S3, IAM, SSM, Cognito, CloudFront, Route 53, ACM, API Gateway, SNS, SQS)
Languages: Python, Java, HCL, Bash, SQL
Tools: Terraform, Kubernetes, Jenkins, Ansible, Docker, GitHub Actions, Prometheus, Grafana, Datadog, Splunk

Open Source

strall.com / Adage Infrastructure Studio – Lake Zurich, IL
• Built Adage, a Terraform-based framework for modular, multi-account AWS infrastructure with runtime-aware parameter management and identity-based access controls.
• Developing Karma, a graph backend using Amazon Neptune for infrastructure lineage and dependency tracking across services and environments.
• Both projects are used to prototype and document patterns I've developed through real-world cloud infrastructure work.

Experience

Senior Data Engineer

Sparksoft – Remote
Oct 2024 – Mar 2025

• Re-architected the EKS cluster lifecycle using Terraform, improving reliability and consistency across environments.

• Designed and automated a repeatable Oracle RDS to Aurora PostgreSQL migration framework using Terraform, AWS SCT, DMS, and Git workflows—enabling rapid conversion testing via disposable environments.
• Integrated Datadog with AWS infrastructure (Lambda, EC2, RDS) to monitor performance metrics and set up custom alerts for critical services.
• Implemented secrets orchestration via Secrets Manager.
• Enhanced observability with custom Grafana dashboards.
• Provided hands-on support during production incidents, root cause analysis (RCA) and issue remediation.
• Worked directly with non-technical stakeholders to surface blockers, clarify priorities, and drive delivery.

Senior Software Engineer
TISTA Science and Technology – Remote
Jun 2019 – Sep 2024

• Automated ingestion of structured/unstructured logs into Splunk for auditing and debugging distributed ETL pipelines.
• Took ownership of a complex Oracle-to-Oracle data migration involving 200+ interdependent SQL scripts tied to production workloads on EKS.
• Fully automated the 14-hour migration process into a single-command workflow, replacing manual CI/CD steps with a DevOps-standard deployment model.
• Worked closely with data scientists and the client to identify and resolve legacy data quality issues ahead of the migration.
• Took ownership of the post-migration data model and aligned it with CMS standards through direct collaboration with analysts, developers, and DBAs.
• Designed and deployed production-grade infrastructure using Terraform, covering EKS clusters, serverless APIs, and multi-account architectures on both existing contracts and new proposals.
• Managed workloads using EKS, Lambda, API Gateway, S3, Aurora, and Route 53, ensuring uptime across dev, test, and prod environments.
• Designed and deployed secure VPC architectures with private/public subnets, NAT gateways, and security groups for containerized workloads and managed databases.
• Implemented least-privilege IAM policies for services and developers, enabling scoped access to S3, RDS, and Parameter Store using Terraform.
• Defined parameter-driven deployment pipelines using SSM, IAM, and Secrets Manager, enabling secure environment separation and team handoff.
• Integrated Cognito for authentication in multiple applications with complex access control needs.
• Delivered repeatable bootstrapping tools and CI/CD patterns adopted across teams.
• Supported infrastructure under active development pressure, debugging Terraform drift, IAM failures, and rollout issues in real time.

Site Reliability Engineer

Bank of America – Chicago, IL
Apr 2018 – Mar 2019

• Designed and implemented a long-term storage solution for Prometheus data using HDFS and HBase, enabling cost-effective retention of time-series metrics.
• Built a Java-based PromQL-compatible query engine to serve archived metrics to Grafana dashboards.
• Enabled future integration of real-time Prometheus data into ML models for predictive alerting.
• Key Technologies: Java, Go, Antlr4, Prometheus, HDFS, HBase, SOLR Cloud, Mesos, Jenkins CI.

Senior Software Engineer

Uptake – Chicago, IL
May 2017 – Mar 2018

• Developed and maintained a suite of microservices for ingesting and transforming industrial sensor data for downstream data science use.
• Worked with Kafka, Elasticsearch, and InfluxDB to support real-time and batch data flows.
• Key Technologies: Java, Scala, Kafka, InfluxDB, Elasticsearch, Docker, Jenkins, Mesos.

Senior Software Engineer

Finch Computing – Reston, VA
Jan 2014 – May 2017

• Built streaming data pipelines and machine learning components on the Data Science team for processing and transforming large-scale datasets.
• Replaced legacy HP Autonomy-based legal search backend with a modern Solr-based platform.
• Key Technologies: Java 8, Python, Apache Solr, Antlr4, MongoDB, AWS EC2, Linux.

Data Engineer

Nokia Location and Commerce – Chicago, IL
Mar 2013 – Jun 2014

• Delivered multiple data products based on global vehicle traffic analytics.
• Migrated high-volume workloads from Hadoop to AWS EMR and re-implemented clustering workflows using Apache Mahout.
• Key Technologies: Java, Hadoop, Hive, Mahout, AWS EMR, EC2, RDS, Puppet.

Senior Engineer

Orbitz Worldwide – Chicago, IL
Aug 2010 – Feb 2013

- Developed Hadoop MapReduce and Hive pipelines to process Webtrends logs into a Greenplum data mart.
- Created performance monitoring tools to analyze latency in hotel search stack.
- Delivered core infrastructure support (DevOps, alerting, custom app server logic) across multiple teams.
- Key Technologies: Java, Hadoop, Hive, Greenplum, Linux

Lead Java Engineer

Sears Holdings Corporation – Hoffman Estates, IL
May 2009 – Aug 2010

- Led development on SOLRx (Solr/Lucene search backend for Sears.com).
- Migrated 200+ application servers during data center transition.
- Key Technologies: Java, Solr, DB2, JBoss, Linux

Senior Application Developer

Harpo Productions, Inc. – Chicago, IL
Apr 2007 – May 2009

- Re-architected Oprah.com with dynamic JSP templates and XML content in Oracle XMLDB.
- Managed distributed development with outsourced partners.
- Key Technologies: Java, JSP, Spring, Oracle XMLDB, Linux

Lead Software Engineer

United Airlines – Chicago, IL
Oct 2002 – Apr 2007

- Designed ETL frameworks and multi-tier web apps for internal tools and data marts.
- Migrated legacy data warehouses (JCL, COBOL, Sybase) to Oracle using Ab Initio.
- Key Technologies: Java, PL/SQL, Oracle, UNIX

Senior Software Engineer

MyPoints.com – San Francisco, CA
May 1999 – Oct 2002

- Engineered e-commerce backend for one of the web's busiest shopping platforms.
- Built individualized email delivery and performance-optimized content flows.
- Key Technologies: Java, Oracle, PL/SQL, Linux

Software Engineer

Motorola – Schaumburg, IL
May 1996 – May 1998

- Developed finance software in C and Pro*C for internal users.

- Key Technologies: C, Pro*C, SQL, Unix

Education

University of Illinois – B.S. Software Engineering, 1995
DePaul University – Graduate Coursework toward M.S. Predictive Analytics