Ted Strall
Backend Software Engineer

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Professional Summary

Backend Software Engineer with over 15 years of experience designing and deploying high-performance, production-grade systems across AWS and hybrid environments. Proven expertise in scalable microservices architecture, real-time data pipelines, and infrastructure-as-code. Creator of Adage, an open-source AWS deployment framework. Adept at leading complex migrations, mentoring developers, and driving cloud-native architectures using Python, Java, Kafka, Kubernetes, and CI/CD best practices. Strong problem-solving skills, excellent written and spoken communication skills, and attention to detail.

Core Skills

Cloud & Infrastructure:
AWS (S3, EC2, ECS, EKS, Lambda, API Gateway, CloudFront, RDS, Cognito, IAM, SageMaker, Comprehend), Kubernetes, Docker

Data Systems:
PostgreSQL, Oracle, Kafka, Prometheus, InfluxDB, Elasticsearch, MongoDB

Languages & Scripting:
Python, Java, SQL, Shell scripting

CI/CD & DevOps:
Terraform, Terragrunt, CloudFormation, GitHub Actions, Jenkins

Architecture:
Microservices architecture, event-driven design, serverless systems

Soft Skills:
Strong problem-solving skills, excellent written and spoken communication, attention to detail, mentoring, cross-team leadership

Industry Focus:
Healthcare, government, and other regulated environments

Work Experience

Senior Data Engineer
Sparksoft Corporation – Columbia, MD
Oct 2024 – Mar 2025

- Led automation of 25 TB Oracle to Aurora migration using AWS SCT, DMS, and Python-based orchestration
- Migrated maintenance of the CMS Advanced Provider Screening data model to a team of business analysts and engineers

Senior Data Engineer
TISTA Science and Technology Corporation – Rockville, MD
Jan 2023 – Sep 2024

- Automated a complex, large-scale data migration of a 25 TB Oracle database
- Integrated automation and reporting developed into the standard release workflow
- Maintained the CMS Advanced Provider Screening data model using Erwin and custom scripting

Senior Software Engineer
TISTA Science and Technology Corporation – Rockville, MD
Oct 2020 – Dec 2022

- Worked in the Office of the CTO supporting rapid prototyping and proposal development
- Designed scalable AWS infrastructure catalog to streamline multi-environment deployments
- Implemented reusable microservice templates with CI/CD automation for secure, compliant code releases
- Supported Spark and analytics teams with backend data flows and orchestration improvements

Senior Software Engineer
TISTA Science and Technology Corporation – Rockville, MD
Apr 2019 – Sep 2020

- Led backend infrastructure development for the CMS Lifeline Project
- Automated infrastructure and pipelines using CloudFormation, Jenkins, and Spark analytics
- Built high-availability deployment strategies across test and production environments

Site Reliability Engineer
Bank of America – Chicago, IL
Apr 2018 – Mar 2019

- Built long-term Prometheus HDFS time-series backend with Kafka ingestion and custom alerting
- Designed metrics processing pipeline to support ML-generated predictions and real-time dashboards

Senior Software Engineer
Uptake – Chicago, IL
May 2017 – Mar 2018

- Maintained ingest pipelines and API infrastructure supporting predictive analytics
- Assisted in DevOps transition to containerized microservices and CI/CD tooling

Senior Software Engineer
Finch Computing – Reston, VA
Jan 2014 – May 2017

- Developed pipelines and services for ingesting and transforming large-scale or streaming data
- Rebuilt search platform backend using Apache SOLR for a subscription legal search service

Data Engineer
HERE – Chicago, IL
Mar 2013 – Jun 2014

- Delivered global data products based on analysis of historical vehicle traffic data

Senior Engineer
Orbitz Worldwide – Chicago, IL
Jan 2010 – Dec 2013

- Built Hadoop jobs to process web logs for Greenplum warehouse
- Developed Hive framework for analyzing latency and improving hotel search
- Implemented cross-platform DevOps automation and monitoring

Lead Developer
Sears – Chicago, IL
Jan 2009 – Dec 2009

- Designed and enhanced Apache SOLR-based search platform for Sears.com
- Led full-stack development, infrastructure migration, and performance optimization

Lead Developer
Harpo – Chicago, IL
Jan 2007 – Dec 2008

- Rebuilt Oprah.com as a dynamic, template-driven JSP site backed by Oracle XMLDB
- Migrated legacy content and workflows, delivering under tight and changing requirements

Senior Software Engineer
United Airlines – Chicago, IL
Jan 2002 – Dec 2006

- Delivered business-critical apps for internal ops using Java, PL/SQL, and shell scripting

Software Engineer
MyPoints – Chicago, IL
Jan 1999 – Dec 2001

- Built backend systems for a top 3 e-commerce site delivering over 1M daily personalized views
- Created automated ingestion and internal admin tools

Software Engineer
Motorola – Chicago, IL
Jan 1996 – Dec 1998

- Developed and supported finance apps as part of the Global Business Applications team

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Open Source Projects

Adage – Config-Driven AWS Deployment Framework
Modular, parameterized infrastructure-as-code (IaC) framework for AWS
Supports runtime promotion, dynamic service discovery, and environment-aware deployments

Strall.com – Portfolio & Live Demo
Serverless website deployed using Adage
Demonstrates real-time config resolution, CI/CD pipelines, and CloudFront integration

AWS Knowledge Base
Markdown-based learning system with detailed service notes and certification checklists
Covers AWS Certified Solutions Architect – Associate & Professional, Developer Associate, and Machine Learning exams

Education

DePaul University
Master's in Predictive Analytics
2011 – Present

University of Illinois at Chicago
Bachelor's in Software Engineering
1992 – 1995