

Sorrell Consulting

SOFTWARE ARCHITECTURE • MODERNIZATION • DISTRIBUTED SYSTEMS

Sorrell Consulting provides principal-led software architecture, modernization, and hands-on engineering for government programs and industry partners. The firm combines commercial production-platform delivery with its founder's earlier experience in Army mission support and defense research.

CORE CAPABILITIES

Architecture & modernization. Assess existing systems, evaluate tradeoffs, define target architectures, and sequence incremental change around operational and delivery constraints.

Distributed systems & data platforms. Design services, event-driven workflows, workload orchestration, and data-processing pipelines; integrate with existing systems.

Reliability & performance. Diagnose bottlenecks and failure modes; improve recovery, observability, concurrency, and resource efficiency.

Implementation & integration. Build and refactor components, APIs, and services; validate designs through tests, documentation, and technical handoff.

COMPANY EXPERIENCE

Citadel, a multi-strategy investment firm

Company engagement | 2020–2022

Architect and technical lead for an approximately six-month redesign of a financial computation engine.

90 → 10 minutes | ~89% reduction

Batch processing time, measured in production.

Global custody and asset-servicing bank

Company engagement | 2022–2024

Designed and led migration to event-driven, incremental processing, replacing an approximately **four-hour end-of-day batch bottleneck**. Required downstream data was ready when scheduled end-of-day workflows began.

SELECTED KEY PERSONNEL EXPERIENCE

Joshua Sorrell | Prior employment

SAIC | 2011–2016

Principal Data Scientist

Supported Army Materiel Command through the Army Software Engineering Directorate at Redstone Arsenal. Developed analytics and decision-support software for logistics, resource allocation, forecasting, and operational planning.

Georgia Tech Research Institute | 2009–2011

Research Scientist

Developed numerical algorithms for military radar electromagnetic modeling; parallelized scientific-computing workloads using MPI, OpenMP, and CUDA.

COMPANY INFORMATION

Sorrell Consulting, LLC

Small Business

Established November 2020

UEI

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Joshua Sorrell

Founder & Principal Engineer

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NAICS

541511 | Primary

Custom Computer Programming Services

541512 | Secondary

Computer Systems Design Services

INSPECTABLE ENGINEERING

Founder-authored resilience libraries and technical writing:

[redress](#) | Python

[recourse](#) | Go

[Operability First: Designing for Safe Recovery](#)

joshuasorrell.com

TECHNICAL FOUNDATION

AWS • Kubernetes • ECS/Fargate
Databricks • PySpark • Delta Lake
Python • Go • C++ • SQL
Terraform • CI/CD

FOUNDER BACKGROUND

U.S. Air Force veteran

Previously held TS/SCI
Inactive since 2016