

Nick Weatherley

Senior Backend Engineer | Remote-First | Cloud Optimization | Observability & Monitoring | 5+ Years of Full-Stack & DevOps Experience

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Summary

Results-driven **Senior Software Engineer** with 5+ years of experience designing and scaling **high-availability, low-latency systems** (99.99% uptime) and **cloud-native infrastructure**. Proven expertise in **distributed systems, real-time data pipelines**, and **observability**, with a track record of reducing latency, optimizing cloud costs (up to 82% reduction), and ensuring SLA compliance. Adept at building resilient, scalable platforms to support mission-critical applications, with hands-on experience in **C++**, **AWS**, **Docker**, and **observability tools** (Grafana, Kibana). Committed to fostering collaboration and technical excellence while driving innovation in infrastructure and developer tools.

Experience

FactSet

Senior Software Engineer

<https://www.factset.com/>

March 2021 – Present

Remote

- Architected a **multiprocessing async push-pull data deployment system** to poll 30+ hosts, compress, hash, and back up data, reducing deployment times by **90%** (400+ GB processed in 12 minutes) and maintaining **99.99% uptime** for mission-critical SLAs.
 - Implemented **PIT blocking/recovery** and **targeted/blanket recovery systems** to maintain data integrity and system resilience under high load.
- Led migration of a Perl Apache 2 fullstack site to a **multiprocess PLACK-based system**, adding OAuth2, long-running request handling, and recovery features to enhance scalability and reliability.
- Upgraded a GraphQL C++ service by modernizing OS (Ubuntu 20 → 22), C++ standards (17 → 20), and LLVM tools (clang-tidy 10 → 14), reducing RTT by **9%** and CPU wall time by **7%** without service interruption.
- Implemented **core dump S3 uploading for ECS services**, reducing debug time by **40%** and improving system observability with documentation and a dedicated debug machine.
- Designed and executed an **EC2-to-on-demand flow** reducing cloud costs by **37%** and enabling 1:1 environment parity across development stages via containerization.
- Proposed and implemented a **RDS rightsizing plan**, cutting cloud costs by **82%** without service disruption.
- Built a **comprehensive monitoring suite** using Grafana, Kibana, and time-series metrics, reducing critical alerts by **30%** and debug time by **62%**.
- Optimized **20+ PostgreSQL functions** to resolve performance bottlenecks, achieving 50–400% speed improvements and enhanced data throughput.

FactSet

Software Engineer Intern

<https://www.factset.com/>

June 2020 – August 2020

Remote

- Developed a real-time transcription comparison engine using **AWS** and **GCP**, reducing error rates by **12%** and accelerating time-to-consumer.

FITKO LLC.

CIO

February 2019 – June 2020

NYC, NY

- Led end-to-end development of IoT-based fitness solutions, including **real-time data ingestion, caching strategies**, and **database optimization** using **AWS** and **GCP**.
- Architected backend services for IoT devices, ensuring **scalability and reliability** for consumer-facing applications.

Education

The Graduate Center, City University of New York

Computer Science and Project Management

December 2020

BS

Projects

Distributed Data Pipeline Optimization

- Designed a **multiprocessing async push-pull system** to handle 30+ hosts, compress/decompress 400+ GB of data in 12 minutes, and reduce deployment times by **90%**.
- Implemented **PIT blocking/recovery** and **targeted/blanket recovery systems** to ensure data integrity.

Cloud Cost Optimization

- Reduced cloud costs by **37%** via EC2-to-on-demand flow and **82%** via RDS rightsizing, while maintaining 1:1 environment parity across stages.

Observability & Monitoring

- Built a **multi-metric dashboard** (Grafana/Kibana) to track data delays, memory usage, and processing times, reducing debug time by **62%**.

Volunteering

American Conservation Experience

Volunteer

<https://www.usaconservation.org/>

August 2013 - December 2013

Santa Cruz, CA

Skills

Languages: C++, Python, Perl, PostgreSQL, Bash

Cloud & Infrastructure: AWS (S3, EC2, EKS, Lambda, RDS), Docker, Kubernetes, Terraform, ECS, ECR

System Design: Microservices, CI/CD Pipelines, High-Availability Architectures, Distributed Systems

Observability: Grafana, Kibana, Time-Series Analysis

Data & Performance: Query Optimization, PostgreSQL, RocksDB, Redis, Data Pipeline Optimization

Awards

Performance Excellence Award

FactSet

2022

Hobbies

Disc Golf, Home Improvement, Hiking, Cooking, Coffee Roasting