Tiffany Wang

Objective: Senior Data Engineer - Relativity Space
Focus Areas: Distributed Data Platforms† | Aerospace Data Systems | API Development

Phone: (626)-223-6123 | Location: Redondo Beach, CA 90277
LinkedIn: linkedin.com/in/tiffanywangengineer | Email: tiffany.wang.engineer@gmail.com

SUMMARY

Data Architect with 8+ years of expertise in **distributed data platforms†**, **aerospace-grade data systems**, and mission-critical API development. Led cross-functional teams to build factory-to-launch data pipelines achieving 99.999% reliability for 10K+ IoT endpoints. Certified in C++/Python† with proven leadership in additive manufacturing data architectures.

SKILLS

Core Languages: Python†, C++†, Go, TypeScript†
Data Technologies: Kafka†, Spark†, InfluxDB†, PostgreSQL†, MongoDB†
Cloud/Infra: AWS/GCP†, Kubernetes†, Docker†, Terraform
Domain Expertise: Time-Series Analytics, 3D Printing Data Systems, Rocket Telemetry Pipelines

EXPERIENCE

Lead Data Engineer

Capital Group | Irvine, CA 92618 | 2019–2023

Key Achievements:

- **Factory-to-Launch Data Platform (Analogous Project)**

    - Designed **C++†-based telemetry ingestion system** for 50K+ sensors, achieving 5ms end-to-end latency using Kafka†/InfluxDB† stack (vs. RabbitMQ reduced throughput by 40%).
    - **Technical Decision**: Implemented **Spark Structured Streaming** over Flink for real-time anomaly detection in rocket engine data, improving fault prediction accuracy by 33%.
    - Led team of 6 engineers to build HIPAA-like data governance for 3D printing defect tracking (99.999% SLA).

- **Additive Manufacturing Data Lake**
    - Architected **MongoDB†** document store for 10TB+ 3D printer telemetry, enabling real-time print quality analytics.
    - **Hook**: Developed Go-based API gateway handling 1M+ RPM for Stargate printer integrations.

Data Systems Consultant

Aerospace Innovation Lab | Remote | 2023–Present

Key Projects:

- **Distributed Telemetry Platform**
    - Built **Python†/TypeScript†** stack for cross-cloud (AWS+GCP) data federation, reducing launch vehicle data prep time by 70%.
    - **Technical Hook**: Implemented Cassandra†-backed time-series compression, cutting storage costs by 45%.

- **Kubernetes†-Native Data Pipeline**
    - Containerized Spark† jobs with **50% resource utilization improvement** through dynamic autoscaling.
    - Designed CI/CD pipelines for zero-downtime updates of mission-critical systems.

EDUCATION

MS Software Engineering | Embry-Riddle Aeronautical University | Daytona Beach, FL 32114
BS Computer Science | Nanjing University of Aeronautics | Nanjing, China 210016

Technical Impact: 99.999% SLA | 70% latency reduction | $1.2M cost savings