

Tony S. Kim

Data Architect · Enterprise Data Layer, Semantic & Spatial-Temporal Mesh

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Long Beach, CA · U.S. Navy Submarine Veteran

TS/SCI (previously held — eligible for reinstatement)

PROFESSIONAL SUMMARY

Data Architect and builder with a U.S. Navy submarine-veteran background, focused on the foundational layer most teams skip: the **raw data structures, schemas, and metadata** that everything else is built on. I design how data is shaped at the source, how entities relate, and how meaning is captured through a governed **semantic layer** so operational and analytical systems stay consistent and traceable. On Palantir Foundry I have modeled ontologies, defined object relationships, and built the curated, governed datasets that downstream analytics and AI consume. I think in **spatial-temporal data meshes** — domain-owned, versioned data products where entities carry position, time, and lineage — and I define the metadata and ABAC-style access policies that make those products secure and discoverable. Comfortable across AWS and cloud-native stacks, SQL and NoSQL stores, and federal/DoD compliance environments.

TECHNICAL SKILLS

Data Architecture: conceptual/logical/physical modeling, schema design, ontology modeling, metadata & lineage, semantic layer, data products, data mesh

Palantir Foundry: Ontology modeling & Actions/writeback, Pipeline Builder, Code Repositories, Workshop, Contour, Quiver, OSDK/Functions

Data Engineering: batch & event-driven pipelines, ETL, CDC patterns, Spark (Foundry), data contracts & validation, reconciliation

Databases & Cloud: PostgreSQL, Oracle Fusion, SQL, NoSQL, JSON, Parquet · AWS, GCP, Azure GovCloud, Docker, GitHub Actions, Terraform

Languages: Python, TypeScript, Rust, SQL, JavaScript, Java, Scala, C#, VBA

AI/LLM: RAG pipelines, feature reuse, masking for model dev/eval, local + cloud LLM (Ollama), OpenAI/Anthropic/Gemini APIs

Governance: ABAC-style access, data quality, cataloging, federal compliance (NIST 800-53, 10 CFR 851)

EDUCATION & CERTIFICATIONS

B.S. Business & Managerial Economics, Dean's List — University of California, Irvine · 2012

Palantir Foundry: Application Developer, Data Engineer, Data Analyst, Data Science tracks; AIP Builder Foundations

Defense: DoD 8570 Baseline (targeting Security+/Network+) · SAP4 & EVM Lead Trainer · Navy NEC 0416 Advanced Sonar Technician

EXPERIENCE

Anduril Industries

Apr 2026 – Present

Quality Intelligence Engineer – Data Architecture (Contract) · Costa Mesa, CA · Defense Technology

- Defined the **data foundation** for the Quality and Manufacturing organizations on Palantir Foundry — raw object types, relationships, and metadata that make every record self-describing and traceable to source.
- Established build-state and unique-part-vs-unit-count conventions at the **schema level** (a 185-line BOM is 185 unique items, not a quantity) so the org could trust its counts in real time through a governed semantic layer.
- Built a QMS knowledge base and a verified-procedure Q&A agent on curated, governed datasets — trustworthy data in front of AI workloads.
- Defined **event-driven integration and CDC standards** (event schemas, ordering, replay, error handling) feeding a governed data lake — reusable EDL-style patterns instead of point-to-point integrations.
- Authored business and technical **metadata, cataloging, and ABAC-style access** standards so quality data products were discoverable, versioned, and securely shared.

Epirus, Inc.

May 2025 – Apr 2026

Supplier Commodities Specialist – Data Architecture & Engineering · Torrance, CA · Defense Technology

- Architected the Cost Delta Tracker **data model** on Palantir Foundry over Oracle Fusion PO revision history: ingestion, ontology modeling, and a reusable 11-category root-cause classification — a domain-owned data product with documented schema and quality expectations.
- Defined **data contracts and field-level validation** across multiple source exports, with type checks and revision-chain integrity tests; reconciled PO revision data to ground truth with regression testing before publishing.
- Onboarded 10,000+ suppliers with EAR/OFAC/denied-parties compliance screening and a SAM.gov API integration.
- Developed **conceptual, logical, and physical data models** spanning relational and non-relational stores, separating operational and analytical workloads.

Yuji Lighting (USA)

Apr 2025 – Sep 2025

Data & Automation Engineer / Operations Analyst · Long Beach, CA

- Architected **event-driven data pipelines** solo, end to end — a unified data store fed by Python ETL from Pipedrive and ShipStation, with error logging and idempotent retries.
- Designed the schema of a 113-field ORDERS database across a 5-phase RFQ/RFP pipeline — the structured layer behind Power BI dashboards that cut order-to-ship time 18%.
- Shipped reusable open-source data tooling (native Python and Rust PDF extraction) adopted as a shared library; built **streaming, event-driven ingestion on AWS**.

U.S. Department of Energy (DOE)

Sep 2024 – May 2025

Compliance Specialist – Data Engineering · Long Beach, CA

- Mapped 10 CFR 851 and NIST 800-53 controls across a classified subcontractor network — the metadata and handling standards behind secure, attribute-based access. **Zero DOE audit findings**.
- Conducted Initial Baseline Reviews with tier-1/tier-2 subcontractors, driving closure of 40+ findings ahead of schedule.
- Designed **attribute-based access controls** reflecting user, resource, and mission attributes across a classified data environment.

Program & Cost Analyst (Level 3) – Data Engineering · Redondo Beach, CA · Defense

- Drove EVM variance analysis on a \$5B satellite program across 300+ Control Accounts and 1,000+ WBS line items — the relational structure and integrity rules behind defensible program data.
- Subcontract Lead for a \$400M IPT; negotiated \$7.2M in FY24 cost recovery; promoted to Level 3 in 6 months.
- Automated integration between transactional program systems and analytical dashboards, reducing manual reconciliation and raising data quality.

United States Navy · USS SEAWOLF (SSN-21)

Feb 2018 – Apr 2023

Sonar Technician (PO2) · TS/SCI · Submarine Service

- Conducted TS/SCI-cleared operations across WESTPAC, UCOM, and SUMMEREX; detected and tracked 15 next-generation foreign submarines — **spatial-temporal tracking** and entity resolution under real operational constraints.
- Sole Linux/Windows SME for AN/BQQ-10 and AN/BYG-1 combat systems; tested AUV/UUV prototypes.
- Operated real-time **streaming sensor-data pipelines**, applying data-quality, ordering, and retrieval patterns in a secure, compliance-driven TS/SCI environment.

Polaris E-Commerce

Jul 2016 – Sep 2017

Business Analyst Manager – Data Architecture & Reporting · Santa Ana, CA

- Built the company's **core data architecture and reporting layer** from the ground up — inventory, SKU, and sales data models unifying fragmented operational data; dashboards used to manage **\$10M in operations** directly with the CEO.
- Scaled the team from 3 to 30 while standing up the data structures and reporting standards that preserved data integrity through growth.

Amazon AWS

Jun 2016 – Sep 2016

Data Center Analyst · Irvine, CA

- MVS zSeries/VM/VSE production support with SLA-driven reliability; backup/recovery discipline foundational to durable, scalable data-lake operations.

CORE COMPETENCIES

Enterprise Data Architecture

Conceptual / Logical / Physical Modeling

Raw Data Structures & Schemas

Metadata & Lineage Standards

Semantic Layer Design

Spatial-Temporal Data Mesh

Event-Driven Integration / CDC

Ontology Modeling (Palantir Foundry)

Data Products & Versioning

ABAC

Data Governance & Quality

AI-Ready / RAG Enablement

AWS Cloud Data Platforms

Federal / DoD Compliance