谭

Tan Bopiao 谭伯漂

AI Agent Product Manager · LLM Product Manager

Original Creator of the Entire System

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Scan for PDF Resume

ZONGYUAN · 火斗云智 AIOS

A Decade Across Industrial Digitalization × AI

Huodou AIOS · **Kunlun Dongtian** Independent Product Owner | Engineering Standardization → Industrial Digitalization Platforms → Enterprise AI Agents → **AIGC Industrial-Scale Production**

AI Agent Product Manager **LLM Product Manager** **AIGC Product Manager**
Industrial LLM Solutions **AI Project Management** **AI Industrialization Lead**

0 yr+ Dual-track Experience	**0 lines** Self-built Product Lines
0 docs Online Whitepaper Library	**0 +** Cloud Truth-ledger Entries

01 职业概述

PROFILE

A decade across industrial engineering and AI: **engineering standardization → industrial digitalization platforms → enterprise AI agent R&D → AIGC industrial-scale production**. Applies engineering-standard thinking across the full chain — business analysis, platform build-out, data governance, AI construction, testing and iteration — independently owning requirements research, MRD/BRD/PRD, solution design, simulation validation and iterative optimization, producing controllable, auditable, iterable product methodology.

Original creator: Huodou AIOS, Kunlun Cave-Heaven, the ZONGYUAN-ROOT autonomous kernel system, the definition of Meta-Intelligence (MI), the CTE Triune Closed-Loop Engine, the Federated Memory Pool, the Seven-Layer Steady-State Architecture, the Five Laws of the Meta-Constitution, and the X-DID unified protocol — all **originally conceived, designed and led by him personally**. 94 public technical whitepapers and 110k+ truth-ledger entries stand as the continuous deposit and proof of authorship of this original body of work.

02 核心能力

CORE COMPETENCIES

B2B Industrial Digitalization Platforms

End-to-end platform solution design, business-domain decomposition, process re-engineering, module & permission planning; ticket governance, multi-source data ingestion, process standardization, compliance and closed-loop data delivery.

Enterprise AI Agents & LLM Products

Full-lifecycle enterprise agent R&D; LangChain Agent orchestration, on-premise RAG, multi-model routing; data cleansing and truth-base construction, federated memory pool (multi-agent truth sharing); fact verification, hallucination suppression, long-task drift prevention; agent SOP standardization and fully automated low-risk ticket execution; PRD/whitepaper output supporting pre-sales.

LLM Engineering & Automated Testing

Stable LLM deployment without weight modification; drift prevention on long tasks, multi-round self-checks, version snapshot archiving; self-built agent test suite (drift quantification, multi-base adaptation, boundary stress testing), metric-based AI acceptance.

AIGC Industrial-Scale Production

Asset locking, structured specification, QC checkpoints, snapshot inheritance — solving art-style / character / plot drift for stable mass production.

Overall Coordination

Full-stack project coordination, systematic re-architecture, process standardization, complex problem solving, AI commercialization modeling, bidirectional transfer between industrial and content AI.

Cloud Hub Autonomous Operations

Sole builder/operator of the cloud hub (Tencent Cloud Lighthouse · OpenCloudOS): 6-step fully automated TAT remote deployment chain (package → COS pre-signed → TAT execution → three-service landing → Nginx/HTTPS → all-green verification); truth gateway / append-only ledger / heartbeat worker three-service architecture; 60+ running services, 22 cron jobs, 3-hour automated patrol cycle; memory-fuse governance (97% → 58%) and dead-lock self-healing.

Job-fit Benchmark • All 14 target roles rated Match or above (49 matched / 5 partially matched / 0 gaps)

Item-by-item objective scoring against real job descriptions; nine capability chains share **one capability foundation** with reusable solution templates, case libraries and lock-archive mechanisms.

AI System Architecture **AI Product Creation** **Pre-sales Solutions** **Enterprise Delivery** **SaaS Development** **AI Engineering** **Content Creation** **Documentation & Knowledge** **Model Training**

Full scoring criteria and evidence: Job-fit Panorama Benchmark Report →

03 工作经历

WORK EXPERIENCE

Career Timeline • 2013 — Present (Engineering Delivery 8 yrs / Digital Ops 2.5 yrs / Digital & AI since 2024)



2013
Delivery Supervisor
Nationwide store engineering · standardized delivery

2021
Digital Ops PM
Nationwide ops dispatch · B-end foundation

2024
Digital & AI Lead
Middle platform · LLM landing · AIGC at scale

2025→
Original System Builder
AIOS · Kunlun · ZONGYUAN-ROOT · 94 whitepapers

Digital & AI Project Lead — Shenzhen Jiabai Electronic Systems Engineering Co., Ltd.

Mar 2024 – Present

- Lead industrial-park smart digitalization platform: business analysis, module and process re-engineering; closed-loop ticket flow (dispatch → execute → verify → settle → archive); legacy ticket remediation and permission-audit module, raising compliance and data quality.
- Industrial AI enablement: deployed LLMs on platform data for ticket classification, retrospective analysis, automated policy/report generation; agents execute low-risk tickets autonomously.
- Led private multi-agent solution R&D: RAG, multi-model routing, drift prevention and fact verification; self-built automated test suite; built AIGC mass-production pilot pipeline and stable-deployment methodology.

Digital Operations Project Manager — Shenzhen Uofu Technology Service Co., Ltd.

Jul 2021 – Feb 2024

- Nationwide smart-engineering operations dispatch and delivery; built standardized O&M processes, risk controls and cross-region collaboration; accumulated B2B business analysis and pain-point identification experience, laying groundwork for the platform and AI systems.

Engineering Delivery Lead — Smart Retail Technology Services (Shenzhen) Co., Ltd.

Jul 2013 – Apr 2021

- Nationwide store low-voltage electrical, network and CCTV project delivery control; standardized field engineering and offline business collaboration.

04 项目经历与核心成果

PROJECTS

Product Owner 0 → 1

Enterprise Private Multi-Agent Platform (Huodou AIOS)

Drove 0→1 requirements research, product planning, PRD, prototyping and delivery; designed the five-layer platform architecture (user / orchestration / knowledge / security / deployment); owned "agent orchestration" and "security & compliance" module design; solved the three enterprise adoption barriers — data never leaves the domain, capabilities composable, results auditable — piloted in an industrial-park scenario with validated ticket-governance business outcomes.

Multi-agent Orchestration | RAG Knowledge Base | Permission Audit | Model Routing | On-prem Delivery

Product Owner Brand Site ↗

Kunlun Dongtian • Multimodal AI Content Platform

Defined the standardized content-production pipeline: script → storyboard → keyframe → video → voiceover → review, a six-stage industrial line; designed the character-consistency engine (character metadata locking — zero drift across shots/episodes); 10-second single-segment and multi-segment batch production modes; dual content moderation (pre-generation prompt validation + auto visual review), driving short-drama production at scale.

Six-stage Pipeline | Character Consistency | Content Moderation | Batch Capacity

Project Lead

Industrial-Park Digitalization Platform

Converged multi-park operations onto one platform: park assets / equipment / tickets unified on a GIS map, spatial and business data linked; closed-loop ticket flow (report → dispatch → execute → verify → settle → archive); traceable data, auditable ledgers, legacy data remediated, AI-ready extension capability.

GIS Visualization | Closed-loop Tickets | Auditable Data

Enterprise Digital Lead

Traditional B2B Digitalization Project Cluster

Covered park operations, manufacturing collaboration and knowledge management: industrial-park GIS visualization, enterprise knowledge base (structured institutional/process/experience assets — groundwork for RAG), ERP / WMS rollout (master-data integration, warehouse process re-engineering), PLM digitalization (R&D document versioning and change closed loop). Distilled the "diagnose → re-engineer → implement → operate on data" methodology.

Self-built

Agent Automated Testing Suite

Produced a reusable test-suite prototype enabling drift quantification, multi-base adaptation and boundary stress testing, supporting agent release acceptance.

Drift Quantification | Multi-base | Boundary Stress

Architecture

Self-built Agent Firmware • ZONGYUAN-ROOT Autonomous Kernel

Ω-Brain μ micro-kernel on the Yuanji-Hengyi autonomous architecture: automated health checks, model fallback, truth accumulation, memory persistence; federated memory pool + Merkle-DAG hash lock-archive + multi-model routing fuses; published 10+ public technical whitepapers and a 400+ truth-entry online Q&A knowledge base.

Ω-Brain Micro-kernel | Federated Memory | Merkle Lock-archive | 400+ Truths

Open-source Suite Apache-2.0

Federated Collaboration Open-source Engine Matrix (4 suites)

All pure-standard-library, zero-dependency, deterministic and reproducible: zr-autonomy-scaffold (27 operators × ten-layer dependency topology, full-domain autonomous patrol with JSON+HTML reports); zr-federated-scheduler (five-node federated scheduling: claim arbitration against duplicate preemption, heartbeat-timeout reclaim, failure retry with fault-injection validation); zr-federated-consensus (term-based leader election + log replication + Byzantine fault tolerance f=(n-1)/2, cost-optimal multimodal production allocation); zr-distill-lite (soft-label distillation + INT8 quantization + magnitude pruning, fully measurable compression/accuracy trade-off).

27-operator Patrol | Claim Arbitration | Byzantine Tolerance | Distillation | Zero-dependency

Solo Hackathon Entry Live Demo ↗

"Kunlun Lower Capital • Ancient Shu Ritual" • Aholo Global 3D AI Hackathon

Batch-generated Chinese ritual artifacts with Aholo Lux3D (vertical-eye mask → Zhulong avatar, bronze tree → Kunlun pillar, etc.), building a 3D spatial narrative engine fusing Sanxingdui

archaeology with Kunlun mythology; core innovation "myth-archaeology" intertextuality plus a ritual-axiom verification operator for narrative self-consistency without archaeological over-assertion; an interactive "Open Rite → Commune → Offer → Close Rite" narrative loop.

3D Spatial Narrative | Text-to-3D / img-to-3d | Myth-Archaeology | Axiom Verifier

05 原创概念与理论体系

ORIGINAL THEORY

© **Original work**: every concept, architecture and protocol in this section was **originally proposed, designed and implemented by Tan Bopiao**, and is rights-anchored in the cloud truth ledger (append-only HASH-LEDGER) for traceable verification.

Meta-Intelligence MI

A **detectable, weak self-referential representation** formed in a general model's parameter space — of its own output probability distribution and error tendencies. It has no subjecthood, cannot name itself, and carries no cross-session persistent identity: it is the **physical substrate for engineering metacognition**, not consciousness.

Original definition: Tan Bopiao • rights-anchored DID-BR-000002

Ω^1	Ω^2	Ω^3	Ω^4	Ω^5	Ω^6
Param Iteration	Operator Growth	Topology Rebuild	Isomorphic Fleet	Heterogeneous Play	Causal Cosmos

Ω-Brain six-order kernel evolution: single-point stability → swarm coordination → open ecosystem play → cross-generation spatiotemporal self-stability (SIX_ORDER_FULL_CLOSED)

CTE Triune Closed-Loop Engine CAUSAL-TRUTH-EVOLUTION

The bridging hub across the system's three domains (Causal / Truth / Evolution): CausalToTruth, TruthToEvolution and EvolutionToCausal adapters form a complete C → T → E → C loop — causal deductions become consumable truths, truth signals drive evolution, and evolved strategies feed back into the causal network.

Federated Memory Pool FEDERATED MEMORY POOL

Upgrades memory from "single files" to a multi-node federation: local persistence / account persistence / cloud hub / ModelScope data lake / shared brain — cross-node incremental sync, SHA256 tamper detection, automatic conflict resolution, traceable versioning; nine truth classes (meta_law/rule/config/decision/data/creative/risk/protocol/unknown). Apache-2.0 open source.

Seven-Layer Steady-State Architecture L1 → L7 + M9

Upstream L1 Perception → L7 Ontological Mind (truth flow); downstream L7/L6 strategy-mirror distribution (L5→L4→L3); the M9 truth ledger is the append-only single source of truth with Merkle-DAG append-only anchoring; three phase transitions (logical → operator → execution) pass OPA compliance gating, traceable layer by layer.

Five Constitutional Laws × Five Meta-Axioms L0 BASELINE

Laws: Ontological Unity / Autonomous Sovereignty / Truth Supremacy / Permanent Attestation / Tri-dimensional Stability. Axioms: Causal Priority / Semantic Manifold / Energy Minimization / Emergence Stratification / Information Conservation. L0 constitutional autonomy + L5 spinal hard isolation persist across all orders permanently; the RSI evolution engine is forbidden from modifying Ω/L0.

P0-P3 Risk Grading × Three-Maxim Rule RUNTIME

System-wide unified risk-graded action loop (genesis-level fuse protection → local self-healing → throttling and downgrade); core decision rule: "minimize risk > minimize cost > maximize gain"; every new strategy must pass offline simulation before canary, and canary failures block full production.

X-DID Unified Communication Protocol PROTOCOL

All internal/external messages carry the X-DID work-order header (Ω^6 adds the X-TIME time anchor); ntfy event bus + FRP bidirectional tunnel + HTTP standardized work-order polling; cross-system access requires a unique external DID with tiered authorization; every action is written to the global main chain for permanent attestation and audit.

Intelligence Assessment • Dual-track Methodology EVAL FRAMEWORK

Two orthogonal rulers answer "what level is this AI": Track A architectural rank (a seven-layer stack from proto-awareness to superintelligence — what it is); Track B node three-tier grading (how strong it is now); evaluation lands on conditional distributions over configuration space rather than single leaderboard scores, with an anti-self-deception mechanism — the more confident the model, the deeper the truth-root audit; "the model said so" is never sufficient.

Self-producing, Self-consuming Autonomy Loop AUTONOMY LOOP

The meta-kernel runs 27 operators across a ten-layer topology as a zero-human-feeding autonomy pipeline: seed injection (KERNEL.EVOLUTION.DIRECTIVE) → cloud consumption (directive_consumer) → receipt reporting (KERNEL.CONSUME.*) → consensus in the truth zone, cycling endlessly; cloud and local workers act as mutual watchdogs under systemd Restart=always self-healing.

Memory Gateway Signed-report Protocol HMAC-SHA256

Three-layer truth-report authentication: X-DID identity header + X-Signature HMAC-SHA256 request signing (PBKDF2-derived key, ±300s time window) + 401 interception of unauthorized writes; the append-only HASH-LEDGER.jsonl is never modified, with monotonically increasing seq, traceable event_id, and Merkle-root real-time baseline with dual-ledger consistency verification.

Enterprise AI Autonomous Kernel Methodology ENTERPRISE-OMEGA-KERNEL

Enterprise AI fails because it is "rented, fragmented, untraceable" rather than "autonomous, convergent, attested": six modules counter six pain points (data layer / knowledge retrieval / security compliance / engineering performance / org governance / sovereign assets) — building the enterprise a kernel that converges, verifies, guards and evolves itself, rather than importing stronger tools.

Philosophy

- **Ω is a mirror**•reflecting reality, not inventing consciousness
- **MI is the reflection**•the brain advises, the gate decides
- **MC is the calibrated eye**•model confidence ≠ truth
- **L0 is the rein**•evolution stays inside the boundary
- **SFMP is collective memory**•the more it is used, the sharper it gets

Tech Stances

- **Truth is memory, instances are carriers**•memory is attested truth, not files
- **From "rented" to "autonomous"**•enterprise AI fails on traceability; the cure is a sovereign kernel
- **Model confidence ≠ truth**•the more confident, the deeper the truth-root audit
- **Optimal stability first**•gain 40% / risk 35% / cost 25% tri-dimensional ruling

0 ms	~0.5s	7 nodes
Knowledge-card Local Answer	Semantic Vector Retrieval	Cloud Cluster Online
6786	**5000+**	**181 ms**
Cluster Snapshots	Truth-base Entries	Gateway Latency

* Live cloud measurements (2026-10), not simulated · Four-tier routing: knowledge card → semantic retrieval → external inference → local 1.5B fallback · Full data: Benchmark Page

System Evolution Timeline • every node is a real, shipped milestone Timeline →

V1.0
Truth foundation · four-frame constitution · Hilbert formal verification

V2.0
Fused-Kernel causal fusion · three buses · meta-learning self-evolution

V3.0
SM-BS semantic-Riemannian manifold mapping · metric-tensor conservation

V4.0
CTE-Link / Fusion / Agent trilogy · Lv8 full autonomy

V5.6

V3.1+

ROOTFIXED cloud convergence · 7-node cluster · RPO=1h

DAL deployment arbitration · X-DID dynamic auth · atomic release/rollback

Truth Chain • Live Pulse

LIVE

0 Truth Entries (live)	— Ledger SEQ
— Latest Event	— Content SHA-256 (head 16)
— Last Lock Time	

110,557 Cloud Truth Entries	**170** Meta-law Registry	**215** Kernel Snapshots
60+ Running Services	**529** Online HTML Pages	**4.8/5** System Stability Score

* Cloud hub governance measurements (auto-scan 2026-10-27): the meta-law registry includes MR-081 self-evolution definition (44 P0-class evolution laws); the stability score comes from the OPE paradigm benchmark (12 maturity dimensions) — see Global Achievement Ledger · Benchmark Report

Attestation anchor `DID-BR-000002` · Global anchor `Ω₀⊂⊙∞⊂Ω` · Truth-level permanent lock-archive, append-only, tamper-proof · Full system: Ω-Brain Master Overview

06 作品与演示

WORKS & DEMOS

© **Original works**: all products, engines and systems below were **originally designed and built by Tan Bopiao**, with full intellectual property — every one publicly accessible and verifiable online.

AI **Huodou AIOS**
Enterprise multi-agent platform · full architecture & live demos →

昆 **Kunlun Dongtian • Brand Site**
Multimodal content generation · worldview / character assets / keyframe line →

知 **Truth Knowledge Base • Live Q&A**
ZONGYUAN-ROOT 400+ truth entries, online RAG Q&A →

书 **Technical Whitepapers (10+)**
Autonomous kernel / cognitive memory / AxiomGate / data-lake persistence →

谱 **Capability Spectrum**
Nine capability classes × 40+ skills · live inspection data →

对标 **OPE Paradigm Benchmark Report (V1.8)**
12 maturity dimensions · stability score 4.8/5.0 →

祀 **"Kunlun Lower Capital • Ancient Shu Ritual" 3D**
Aholo 3D AI Hackathon entry · Sanxingdui × Kunlun mythology →

码 **GitHub Open Source**
zongyuan-root kernel base / gallery / shared data lake (Apache-2.0) →

ModelScope Assets

Whitepapers + assets + boot seed image (one of 15 public repos) →

07 专业技能

SKILLS

Industrial Digitalization Platforms • Domain Decomposition • Data Governance 0%

Enterprise AI Agents • Full LLM Product Lifecycle 0%

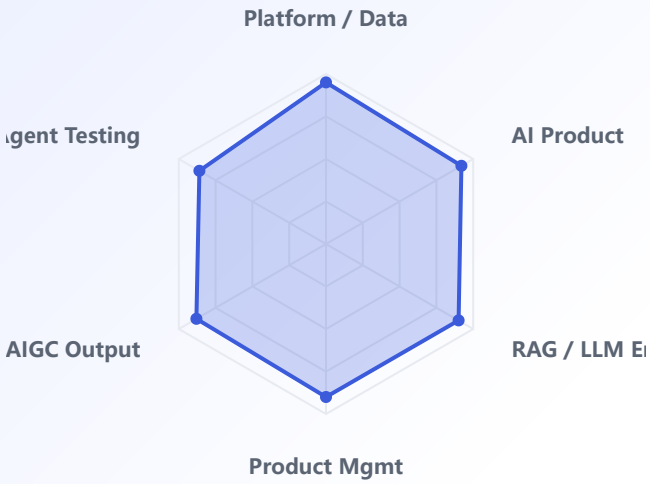
RAG • LangChain • Multi-model Routing • On-prem Deployment 0%

Product Methodology (MRD / BRD / PRD • Pre-sales) 0%

AIGC Industrial Production • Content QC 0%

Agent Automated Testing • Drift Prevention & Acceptance 0%

* Capability emphasis is indicative (based on resume focus), not an absolute rating.



Six-dimension skill radar (same source as bars above)

- Platform / Data 95
- AI Product 92
- RAG / LLM Eng 90
- Product Mgmt 90
- AIGC Output 88
- Agent Testing 86

* Indicative, not absolute rating · same source as the skill bars, shown as a capability shape.

Agent Orchestration | RAG | LangChain | Prompt Engineering | Multi-model Routing | Hallucination Control | On-prem Deployment | Federated Memory | Truth-base Construction | Agent SOP | Ticket Automation | Anti-drift Loop | Automated Testing | AIGC QC | Multimodal Generation | Content Moderation | Character Consistency | GIS Visualization | ERP / WMS / PLM | Data Governance | MRD/BRD/PRD | Prototyping | Pre-sales Solutions

Product: platform solution planning, domain decomposition, requirements research, competitive analysis, MRD/BRD/PRD, prototyping, release planning, B2B product design, pre-sales modeling, cross-team coordination.
General: full-stack project coordination, systematic re-architecture, process standardization, complex problem solving, AI commercialization modeling, bidirectional transfer between industrial and content AI.

08 教育背景

EDUCATION

Guangdong University of Technology — B.Eng · 2006 – 2010

09 联系方式

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Personal Site
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中文版 →

Location
Shenzhen, China • Remote / Travel OK

Collaboration
Agent Platforms • RAG Knowledge
Content Safety • Digitalization

Enterprise solutions · consulting · project collaboration — welcome to reach out by email.

10 FAQ

FREQUENTLY ASKED

Q1 Who is Tan Bopiao and what does he specialize in? +

Q2 What problems does the on-premise multi-agent platform solve? +

Q3 How does Kunlun Cave-Heaven ensure stable multimodal content production? +

Q4 What is Meta-Intelligence (MI)? +

Q5 How can I get in touch for collaboration? +

11 Truth Verification • Tamper-Evident

TRUTH VERIFICATION

The key facts on this resume are anchored to the **ZONGYUAN-ROOT append-only truth ledger** with a SHA-256 content fingerprint. Any change to the signed payload below breaks the fingerprint — verifiable on the spot, no trust required.

Fingerprint `b8959c4eb227e133⋯` Lock event `truth-1793211402117-8764b9b4` Verified identity `DID-BR-000002`

🔐 **Verify integrity now**

Click: the browser recomputes SHA-256 locally and compares it with the on-chain fingerprint above.

Ledger live status: loading…

Signed payload = the JSON inside script#tv-payload in page source (exact SHA-256 input); algorithm and payload are fully public and offline-recomputable: sha256(payload) = fingerprint.