

# Péter József Lódrí

Senior Systems Software Engineer — Rust, Simulation & Accelerated ML Platform (Arene SDV) — Building the software-defined vehicle operating system and real-time 3D digital twin fabric.

Live Interactive Showcase: <https://woven.vaked.dev> · LinkedIn: <https://www.linkedin.com/in/peter-lodri/>

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## 01. SELECTED SYSTEMS & INTERACTIVE WORKS FOR Woven by Toyota (ウーブン・バイ・トヨタ)

Osiris (simplifaisoul/osiris) [OSS Architect · Real-Time 3D Digital Twin] — <https://github.com/simplifaisoul/osiris>  
Core Architect on Osiris — real-time 3D geospatial digital twin and live multi-stream telemetry visualization platform.

Age of Gaia & Water-Fall Disc [Deterministic Simulation Engine · Zero Deps] — <https://age.vaked.dev>  
Self-contained deterministic game-loop and physical particle simulation engines with zero external dependencies.

pureQTern & MLX-QUANT [Rust / C · Bit-Exact Edge ML Codec] — <https://github.com/8b-is>  
Bit-exact C and Rust 1.58-bit ternary codec + custom GPU kernels delivering 12.80× model compression for in-vehicle ECUs.

Osaurus & Headroom (PR #1418) [OSS Architect · Cryptographic Agent Harness] — <https://github.com/osaurus-ai/osaurus>  
Core Architect on Osaurus (native Swift agent runtime with cryptographic identity) and contributor to Headroom kompress domain routing.

Distributed Streaming & Telemetry [High-Concurrency Telemetry · 110k+ Users] — <https://github.com/peterlodri-sec>  
Led backend streaming for 110k+ concurrent users at DailyWire and reduced enterprise latency by 50 – 70% at ASAPP via Go/Kafka/K8s.

ZENO (銭・禪・善) [Hash-Chained Verification · Sovereign Ledger] — <https://zeno.vaked.dev>  
Double-entry SHA-256 hash-chained ledger ensuring tamper-evident auditability for every state transition.

## 02. ALIGNMENT WITH YOUR ENGINEERING ROADMAP / 志望動機

Woven by Toyota is executing the most ambitious systems integration challenge in Japan: building Arene as a programmable operating system for millions of vehicles while turning Woven City into a living physical-digital testbed. That requires engineers who can cross cleanly between memory-safe Rust systems, deterministic 3D simulation twins, high-throughput cloud telemetry, and compressed edge ML — the exact intersection I have built across Osiris, pureQTern, MLX-QUANT, and 9+ years of production distributed engineering.

Woven by

Toyotaが日本橋から世界へ発信するソフトウェア・ディファインド・ビークルOS「Arene」と実証都市「Woven City」は、モビリティの歴史を書き換える挑戦です。Rust/Cによる高信頼システム開発、リアルタイム3Dデジタルツイン基盤（Osiris）、11万同時接続を処理した大規模分散テレメトリ、そして車載推論を12.80倍効率化する量子化技術（pureQTern / MLX-QUANT）を結集し、AreneとWoven Cityのコア基盤開発に貢献したいと強く志望しています。

## 03. DIRECT LINKS & LINKEDIN CONTACTS

- Hajime Kumabe (隈部肇) (Chief Executive Officer (CEO), Woven by Toyota):  
<https://www.linkedin.com/search/results/people/?keywords=Hajime%20Kumabe%20Woven%20by%20Toyota> — CEO leading Arene OS commercialization and Woven City Phase 1 launch.

- John Absmeier (Chief Technology Officer (CTO), Woven by Toyota):  
<https://www.linkedin.com/search/results/people/?keywords=John%20Absmeier%20Woven%20by%20Toyota> — CTO overseeing Arene SDV software platform, simulation, and automated driving.

- Woven by Toyota Talent Acquisition (Arene & Enterprise AI) (Technical Recruiting · Nihonbashi, Tokyo): <https://www.linkedin.com/search/results/people/?keywords=%22Woven%20by%20Toyota%22%20Recruiter%20OR%20Talent%20Acquisition>  
— English-first global talent acquisition team at Nihonbashi Muromachi Mitsui Tower.