

Team Summary

Keith So - Principal Researcher and Lead Engineer

Organisation: KITFUNSO LTD (UK registered)
Role: Principal Researcher, sole developer
FTE commitment: 80% for 3 months (Oct - Dec 2026)
Location: London, United Kingdom

Relevant Experience

- Hippo Memory System (2024-present): Designed and built the entire Hippo system from concept through 27 release versions. Implemented 7 biologically-inspired memory mechanisms, a Velocity Verlet physics engine for 384-dimensional particle dynamics, a quantitative evaluation harness (MRR/NDCG metrics), and integrations with 6 major AI platforms. 28 source modules, 527 automated tests. Published on npm as open-source.
- Quantitative Trading Systems: Multi-year experience designing and operating production algorithmic trading infrastructure. Built real-time signal generation pipelines, risk management systems, and automated execution platforms handling live financial markets. Directly relevant skills: numerical methods, statistical analysis, high-dimensional optimisation, and system reliability under production constraints.
- Production AI Tooling: Built and maintained AI-powered data extraction and analysis systems processing large-scale unstructured data. Experience with LLM integration, prompt engineering, evaluation methodology, and deploying AI systems in production environments with reliability and accuracy requirements.

Technical Skills Relevant to This Project

Feasibility Objective	Required Skills	Evidence
O1: Convergence proofs	Dynamical systems, Lyapunov analysis, numerical methods	Built Velocity Verlet integrator; quant trading (stochastic calculus, optimisation under constraints)
O2: Benchmarking	Evaluation methodology, statistical testing, ML systems	Built MRR/NDCG eval harness; 527-test suite; production AI systems with accuracy SLAs
O3: Multi-agent spec	Distributed systems, software architecture, AI integration	6 platform integrations; production trading systems (distributed, real-time, fault-tolerant)

Resources and Equipment

GPU Compute: NVIDIA RTX 5080 (16GB VRAM, Compute 12.0), PyTorch 2.10 + CUDA 12.8 - in place
Cloud: AWS and Google Cloud accounts for reproducibility and scaling tests
Software: Hippo v0.27.0 codebase, FAISS, ChromaDB, LlamaIndex, Python scientific stack
Benchmarks: Baseline frameworks installed locally; 100K evaluation corpus from public datasets
Facilities: Remote working (London); no laboratory or specialist facilities required

Phase 2 Consortium Team (planned)

Keith So (KITFUNSO LTD) Technical lead, system architecture, integration engineering
Applied Mathematician (TBC) Convergence proofs, stability analysis, scaling theory
Academic Partner (TBC) Computational neuroscience / dynamical systems research group
Enterprise Partner (TBC) Validation environment for multi-agent deployment at scale