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Production AI and autonomous agent systems, architected and operated hands-on. Fourteen years of companies founded and run across enterprises, commercial property, and applied AI: Chief AI & Robotics Officer leading a company-wide AI transformation, a 34-agent autonomous production fleet (160+ live workflows), a 743,000-node semantic memory cortex on PostgreSQL 18, and 7 Zenodo DOI-deposited research manuscripts. No outside capital, no hand-off layer: discovery, architecture, deployment, evaluation, and 24/7 production telemetry executed personally.

AI & AGENT SYSTEMS - BUILT & DEPLOYED

- Architected, shipped, and operates a 34-agent autonomous production fleet - 160+ scheduled and event-driven workflows across research, engineering, customer operations, finance, and security; live 24/7 since May 2026 with deterministic safety gates, circuit breakers, and self-healing recovery.
- Built the five-layer persistent memory cortex solo: 743,000+ memory nodes and 124,000+ associative synapses on PostgreSQL 18 + pgvector + SQLite with hybrid lexical-vector retrieval and sub-second recall.
- Built the evaluation and verification layer: adversarial multi-model review pipelines, null-baseline ablation batteries, and benchmark engineering incl. ARC-AGI-3 solved to ceiling (25/25 levels, exact-solve trajectories) and five-modality medical imaging evaluation.
- Engineered the full-stack integration and real-time voice/browser layer: Playwright browser automation, MCP tool servers, Cloudflare Workers edge routing, and WebRTC/WebSocket voice & telephony pipelines (Twilio, Cartesia, STT/TTS) wired into daily operations.

TECHNICAL STACK

Python | TypeScript / JS | PostgreSQL 18 & pgvector | SQLite | Multi-Agent LLM Orchestration & MCP
Playwright & Browser Automation | Cloudflare Workers & Pages | WebRTC & Voice AI | REST APIs & S3/R2 Storage

SELECTED RESULTS & RESEARCH

- $4M in one quarter - solo quantitative arbitrage systems designed and run with no team and no outside capital.
- Instruction-architecture benchmark record: stock frontier model on my cognitive architecture scored 40-42/48 on the Hoeflin Mega Test (normed 1 in 1.7M / 99.9994th percentile) - the only published result of its kind.
- 7 research manuscripts in peer review & Zenodo DOI-deposited (psychometric & consciousness measurement, null-baseline ablation methodology, structural rigidities in continuous spontaneous localization).

EXPERIENCE

CHIEF AI & ROBOTICS OFFICER - PLATEAU TREES (SYDNEY / NSW) 2026 - Present
- Leading company-wide AI and software transformation for a high-volume NSW operations business: architected custom CRM, multi-platform application suite, automated quoting engine, and AI customer ops.

FOUNDER & PRINCIPAL - PITCH BLACK INDUSTRIES (12 COMPANIES) 2012 - Present
- Built and ran the operating systems behind a self-funded twelve-company portfolio: applied AI studio, commercial property, diamond manufacturing, and licensed venues; payroll met every cycle; AUSTRAC clean.
- Embedded operator since 2016: turned rosters, staffing, compliance, supplier negotiation, and cashflow into live software systems, working directly with staff, counterparties, and customers.

PRINCIPAL - PROPERTY & COMMERCIAL PORTFOLIO (SYDNEY) 2024 - Present
- Rockdale commercial freehold (17-19 The Seven Ways, 100% via unit trust) and Sydney CBD retail sites; multi-party commercial refinance closed.

FOUNDER - CELESTYN JEWELS / EZRA KHO ATELIER (SYDNEY) 2018 - Present
- Lab-grown diamond house: 50/50 manufacturing partnership, GIA/IGI certification pipeline, Sydney retail.

DMM FX AUSTRALIA - FX & CFD BROKER (SYDNEY) 2013 - 2015
- Sydney FX desk through the 2013-2015 volatility cycle; client execution, margin risk; payslips & super on file.

JPMORGAN PRIVATE BANK (CANDIDATE) & SYDNEY FINANCE / CARER OPS 2011 - 2023
- Eighteen months in the JPM PB orbit (interviewed Oct 2012); Sydney agency payroll & accounting (2012-2016); 24/7 complex family care alongside running venue operations on zero external income (2020-2023).

EDUCATION & DISTINCTIONS

- BFin (USA) | MAcc | MBA | UNSW Medicine (6 yrs completed, clinical & biostatistics) | CFA Level 1 at 19
- Triple Nine Society (ISPE) - verified member (entry requirement >= 99.9th percentile / 1 in 1,000)

References & verification receipts on request. Full interactive dossier: witchcraft.expert/cv | Available for Remote & Greater Sydney roles.