

Mark Smalley

Chief Technology Officer (CTO) · Head of Engineering · Blockchain Protocol Architect

Available for the right opportunity · Open to employed roles, UK/Europe & remote globally

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PROFILE

Personally built the Ordzaar prototype that became CakeDefi's fifth business vertical. Led the engineering pivot at Oviato that secured DraperVC investment. First blockchain company admitted to the Securities Commission Malaysia regulatory sandbox. 15 years building and shipping production blockchain infrastructure (UTXO scripting, Schnorr/Taproot, Ordinals, passkey/WebAuthN, protocol design), equally comfortable writing cryptographic code and managing cross-functional engineering teams. Currently applying AI-augmented engineering methodology to ship framework-level architecture at solo-founder velocity. UK-based since 2025. Seeking a pre-seed to Series B engineering leadership role where technical depth and startup operator experience both matter.

CORE TECHNICAL SKILLS

Bitcoin / UTXO	UTXO scripting, Schnorr/Taproot, Ordinals, Inscriptions, Runes, BRC-20, BitcoinJS, digital assets
Ethereum / EVM	Solidity, EthersJS, Web3.js, ERC-20, ERC-721, IPFS, smart contract development, DeFi
Auth & Identity	Passkeys, WebAuthN, FIDO2, cryptographic key management, custody systems
Backend	Node.js, TypeScript, JavaScript, MongoDB, Neo4j, REST APIs, SDK development, distributed systems
Frontend	React, Svelte, VueJS, Tailwind, ThreeJS, WebGL, full-stack delivery
DevOps & AI	Docker, CI/CD, Cloudflare Workers, LLM-augmented engineering, AI systems
Leadership	Cross-functional team leadership, hiring, technical roadmap, stakeholder management, hands-on (P4→M3)

WORK EXPERIENCE

Chief Blockchain Officer Oviato — United Kingdom

Feb 2025 - Mar 2026

Co-founded and led the technical pivot from consumer app to passkey-native wallet infrastructure provider, building on prototype work from Project Eden (weekend hackathon → production architecture). The pivot secured DraperVC investment.

- ▶ Secured DraperVC investment by producing passkey/WebAuthN prototypes that formed the core of the investor pitch and technical due diligence
- ▶ Designed and built internal cryptographic framework underpinning the passkey wallet architecture
- ▶ Led the technical narrative that pivoted the company from consumer app to B2B infrastructure provider

CEO & Founder (active) Moddable Limited — United Kingdom

2025 - present

AI-augmented engineering methodology applied to framework-level architecture. Built a complete open-source product ecosystem (two engines, Consumer SDKs, 15 AI-callable MCP tools, developer documentation) at solo-founder velocity, demonstrating how LLM-driven workflows deliver CTO-grade architecture without CTO-sized teams.

- ▶ Designed extensible plugin architecture that scaled from single product to multi-product ecosystem without core rewrites: renderer hooks, game controller, replay API, unit templates, terrain predicates, native ESM (same source serves browser, Worker, and Node.js)
- ▶ Proved the architecture by building a second product (Dungeon Chess) entirely on the framework's consumer APIs. Zero engine forks, zero special-casing. 4 factions, custom rendering, AI opponents
- ▶ Built and deployed the first board game MCP server (tools.moddable.games): 15 AI-callable tools across 2 engines, Cloudflare Worker, MCP + REST + OpenAPI + llms.txt
- ▶ Engineered multi-depth AI system: Web Worker threading, iterative deepening, transposition tables, quiescence search, opening books for 26 game variants, variant-specific evaluators
- ▶ Shipped 535 commits across 10+ repositories in 16 days using LLM-augmented development. Demonstrates the methodology's viability for startup-speed delivery at architecture quality

Head of Engineering CakeDefi — Singapore

Feb 2023 - Sep 2023

Joined a 170-engineer company as P4 Engineer; promoted to M3 Manager within months. Tasked with designing novel Bitcoin meta-protocols, then given mandate to form and lead a new Moonshot team (grown from 1 to 10) whose first output became Cake's fifth business vertical.

- ▶ Sole developer of the first working prototype for Ordzaar — Bitcoin's leading Ordinals marketplace. Spun out independently, raised US\$500K, and was subsequently acquired
- ▶ Founded and structured the Moonshot team (1 → 10 engineers): hiring, sprint cadence, product vision, and stakeholder reporting
- ▶ Deepened UTXO expertise across Schnorr signatures, Taproot, Ordinals, Inscriptions, and Runes
- ▶ Co-authored the [SADO Protocol](#) — a decentralised, self-authenticating order-book standard for Bitcoin Ordinals — published as an open-source SDK now used across the ecosystem

CEO & Founder R1 — Malaysia

2012 - 2025

Founded and operated Malaysia's leading blockchain infrastructure and advisory firm for 13 years. Built and shipped production products across KYC, AML, digital custody, and wallet infrastructure while simultaneously shaping national regulatory policy.

- ▶ First company admitted to the Securities Commission Malaysia regulatory sandbox
- ▶ Contributed directly to Malaysia's Digital Asset regulatory roadmap alongside SC and central bank stakeholders
- ▶ Co-founded and funded CoKeeps — now Malaysia's largest Digital Asset Custodian by AUM — providing five years of capital from R1
- ▶ Designed and shipped multiple production systems: KYC/AML pipelines, blockchain wallets, learning management, and digital identity platforms — full-stack from protocol to UI
- ▶ Authored [DN-Key protocol](#) for decentralised key management and [SADO](#) for ordinals order-book infrastructure
- ▶ Enterprise clients included DBS Bank (Singapore) and Baker Hostetler (USA, 5-day training and advisory engagement)
- ▶ Shareholder in CoKeeps and Sinegy following equity arrangements from advisory and build work

Chief Technology Officer Neuroware Inc — USA / Malaysia

2013 - 2018

500 Startups Batch 9 (US\$300K+ seed sustaining 12 years of operation). Launched at TechCrunch Disrupt London. Blockchain infrastructure company providing compliance-grade tooling to licensed FinTech operators and regulators across Southeast Asia. Team of 5 engineers.

- ▶ Ranked Top 5 by VentureBeat from 500 Startups Batch 9; the only Malaysian company in Deloitte's Top 50 Global RegTech
- ▶ Authored Everstore protocol (25-page whitepaper) — complete relational database engine mapped onto BIP32 key derivation with CRUD, encryption tiers, and audit trails on UTXO chains, before Ethereum existed
- ▶ Built open-source blockchain wallet and SDK infrastructure — powering the world's first bank-backed blockchain hackathon (DBS Bank Singapore), processing 1M+ API requests; 7 of 15 teams built on our stack
- ▶ Developed 30+ Ethereum smart contracts for BloqVerse (~20 upgradeable, ~10 immutable) — fully serverless architecture with IPFS-served frontend and no traditional database
- ▶ Core technical stack: UTXO scripting, Solidity, EthersJS, BitcoinJS, IPFS, MongoDB, Node.js

OPEN SOURCE & PROTOCOL CONTRIBUTIONS

- ▶ [SADO Protocol](#) — co-authored self-authenticating, decentralised ordinals order-book; SDK at github.com/sadoprotocol, used in production by Ordzaar and third-party exchanges
- ▶ [DN-Key Protocol](#) — decentralised key management via DNS TXT records; adopted by ATA Plus ECF, cited by name in SC Malaysia's capital markets blueprint, and reused in Oviato's chain-agnostic identity layer nine years later
- ▶ [Everstore Protocol](#) — complete on-chain relational database via BIP32 key derivation: CRUD, encryption, indexing, audit trails (2016, pre-EVM; 25-page whitepaper)
- ▶ [Ordit SDK](#) — indexer, parser, and API toolkit for Ordinals and Inscriptions; ~50K npm downloads (github.com/sadoprotocol/ordit)
- ▶ [BackPress](#) — core contributor to Automattic's BackPress framework (WordPress ecosystem)
- ▶ 20 public repositories at github.com/msmalley covering wallet infrastructure, protocol tooling, and blockchain SDKs

SELECTED ACHIEVEMENTS

- ▶ DraperVC investment secured (Oviato, 2025) — technical work directly influenced funding decision
- ▶ Ordzaar prototype — sole developer; became CakeDefi's fifth business vertical, spun out, raised US\$500K, acquired
- ▶ [TEDx Sarawak speaker \(2017\)](#) — 'The Cost of Cash'
- ▶ Accepted into 500 Startups Batch 9 and Antler Malaysia Batch 2
- ▶ Deloitte Top 50 Global RegTech Companies (Neuroware, 2017)
- ▶ Digerati50 — Malaysia's top 50 digital leaders

EDUCATION & CREDENTIALS

Accepted — 500 Startups Batch 9

Registered HRDF Trainer (Malaysia)

A-Level English — Open Uni, 1998–99

Accepted — Antler Malaysia Batch 2

Silver Duke of Edinburgh Award

GCSEs / O-Levels — 6 Bs & 1 A, 1990–95

REFERENCES

Shafiu Hussain

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U-Zyn Chua

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