

Trevor Miller

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SUMMARY

Technical co-founder who built and operates a production Cosmos SDK L1 blockchain with full EVM compatibility—owning every dimension from protocol design and infrastructure to validator coordination and product strategy. Invented a 100% standardized tokenization module where 1,000+ composable primitives are enforced at the protocol level on every transfer. M.S. CS, Virginia Tech (4.0, 1st / 6,313).

EXPERIENCE

Co-Founder & Lead Engineer | [BitBadges](#)

Summer 2022 – Present

- ▶ Invented and built a first-of-its-kind, 100% standardized, protocol-level tokenization module purpose-built for real-world tokenization with compliance controls at every level. 1,000+ composable primitives enforced on every transfer everywhere (DEXs, liquidity pools, IBC) automatically. Unifies NFTs, fungible tokens, subscriptions, credentials, and real-world assets in one standard
- ▶ Designed a composable approval engine with 40+ primitives (KYC gating, jurisdiction controls, vesting, lock-ups, trading hours, volume limits, Merkle whitelists, multi-sig, forced transfers, royalties, time-dependent balances) combinable declaratively for regulatory coverage across any jurisdiction—no code, zero per-project audit cost
- ▶ Sole developer of the entire platform end-to-end: Cosmos SDK L1 chain (Go), Next.js frontend (React, Redux, Tailwind), Express.js API with 264 endpoints, real-time MongoDB indexer with Redis caching, published TypeScript SDK (npm), and full developer documentation (docs.bitbadges.io)
- ▶ Built the chain with full EVM compatibility (dual Cosmos + Ethereum JSON-RPC), 3 custom EVM precompiles bridging Solidity to native tokenization logic, IBC interoperability across 200+ Cosmos chains, and CosmWasm smart contract support
- ▶ Coordinated 50+ validators (9M+ blocks, 25+ Cosmovisor upgrades, zero major downtime) and deployed production infrastructure on DigitalOcean Kubernetes (11+ services) with Docker, GitHub Actions CI/CD, GCP KMS encryption, S3, and IPFS
- ▶ Built on-chain AMM liquidity pools with compliance enforcement, IBC-backed smart tokens, cross-chain swaps (Skip Go / Axelar), and a hybrid on/off-chain claims system gating mints, transfers, and rewards from 7,000+ off-chain apps via webhooks and custom plugins

Software Development Engineer in Test (Intern) | [Cvent Inc.](#)

Summer 2021

- ▶ Built a company-wide test case analyzer (Flask, Python, MySQL) that optimized test runtime and success rates; maintained the internal QE Portal (React, Bootstrap, Jest) and eliminated sync issues across shared testing frameworks

EDUCATION

B.S. / M.S. Computer Science | [Virginia Tech](#)

Aug 2019 – Dec 2022

- ▶ GPA: 4.0 / 4.0 — Class Rank: 1st (tied) / 6,313
- ▶ Completed both degrees in 3.5 years (B.S. in 2.5 years)
- ▶ Recipient of 3 CS scholarships for academic excellence
- ▶ Master's Thesis: VTBC — Privatizing Volume and Timing in Blockchain Transactions

SKILLS

Languages	Go, TypeScript, JavaScript, Solidity, Rust, Python, Java, C, SQL, Protobuf
Blockchain	Cosmos SDK, CometBFT, IBC, EVM, CosmWasm, Hardhat, ethers.js, @cosmjs
Frontend	Next.js, React, Redux, Vue.js, Ant Design, Tailwind CSS, Vite, Playwright
Backend	Express.js, Node.js, Bun, MongoDB, Redis, Passport.js, JWT, OAuth, WebSockets
DevOps	Kubernetes, Docker, GitHub Actions, DigitalOcean, GCP KMS, AWS S3, IPFS, Nginx
Other	Stripe, OpenAPI, MCP (AI tooling), Merkle trees, ZK proofs (gnark/groth16), SendGrid

PERSONAL PROJECTS

Blockin — Multi-Chain Sign-In Standard | [npm: blockin](#)

2022

Open-source authentication and micro-authorization library for Ethereum, Cosmos, Solana, Bitcoin, and Algorand with pluggable chain drivers. Adopted as the auth layer for BitBadges SIWBB.