Monterious Drake

*Senior **Blockchain** Engineer*

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SUMMARY

Senior Blockchain Engineer with over 8 years of experience in developing, deploying, and optimizing blockchain technologies, including Ethereum, Cosmos SDK, and Hyperledger, with a focus on smart contract development and decentralized applications.

- Expert in Golang and Solidity, with deep experience building secure smart contracts, APIs, and backend services for decentralized platforms using EVM, CometBFT, and Cosmos SDK.
- Extensive background in developing and deploying DeFi platforms, DAOs, and NFT solutions (ERC20, BEP20, CW20, BRC20), including fractional ownership and tokenomics optimization.
- Skilled in ZK-rollup development, enabling scalable Layer 2 solutions and reducing on-chain gas fees through off-chain transaction batching and rollup architecture.
- Proficient in decentralized data storage using IPFS, cross-chain communication, and blockchain indexers, enhancing interoperability and system transparency.
- Advanced knowledge of CI/CD pipelines with GitLab, Terraform, Kubernetes, and AWS, enabling secure, automated delivery and infrastructure provisioning.
- Strong frontend integration experience using ReactJS, NextJS, ethers.js, and wagmi to build responsive dApps with seamless wallet and contract interaction.
- Consistently delivered blockchain applications across fintech, gaming, media, and metaverse industries, focusing on scalability, security, and innovation.

EXPERIENCE

Senior Go, Solidity Engineer   02/2024 – 04/2025

Caldera (San Francisco, CA)

- Leveraged Golang to create API calls against the blockchain through the command line using cURL, enabling seamless interaction with the blockchain network.
- Developed decentralized applications on Ethereum, using Solidity for smart contract development and tools like Truffle and Hardhat for testing and deployment in terms of the main platforms
- Improved data serialization and communication by leveraging this tool, resulting in a 30% increase in data transfer efficiency by integrating Protobuf as the default encoding library in the Cosmos SDK.
- Built a secure state machine in Golang on top of CometBFT using the Cosmos SDK, improving transaction processing efficiency by 60% and reducing inconsistencies by 20%.
- Developed and deployed smart contracts on Ethereum blockchain and Core blockchain, optimizing transaction processing and ensuring security using Solidity and Foundry framework.
- Led the development of a Crypto Index Fund proof of concept, leveraging Solidity and the EVM, to provide users with diversified investment opportunities in the digital asset market.
- Spearheaded the development of a proof of concept for a Decentralized Autonomous Organization (DAO) using Solidity and Tally, enabling community-driven decision-making processes.
- Managed the launch of tokens on the ZK-rollup platform, achieving a 60% average staking participation rate through comprehensive tokenomics strategies and secure staking platforms.
- Balanced a ZK-rollup chain operating on top of the Ethereum blockchain, enabling the execution of transactions off-chain while periodically committing transaction batches to an on-chain rollup contract.
- Implemented campaign smart contracts using Solidity, wrote unit tests, and achieved a 30% cost saving by optimizing gas usage in smart contracts through thorough testing and debugging.

- Developed Go's efficient concurrency model with goroutines that has been instrumental in developing scalable distributed systems and focused on performance and simplicity using Golang for API development and Backend services.
- Maintained over 5 projects with CI/CD scripts for GitlabCI, with focus in automation while taking care of the delivery using Terraform for infrastructure and Kubernetes.

Blockchain Developer - EVM   10/2021 – 01/2024

Pinata (Remote)

- Created Modallion E, an ERC20 token and deployed it on the Ethereum blockchain using Solidity and the EVM (Ethereum Virtual Machine), contributing to the expansion of the decentralized finance (DeFi) ecosystem.
- Developed private blockchains on the company's AWS servers, demonstrating expertise in setting up and configuring blockchain networks for testing purposes and data management.
- Mentored 2 junior developers, conducting knowledge-sharing sessions on Golang best practices, distributed systems, Spanner DB optimization, Kubernetes orchestration, and CI/CD workflows, improving overall team efficiency.
- Implemented IPFS (InterPlanetary File System) to efficiently shard and distribute large data across multiple participating nodes, enhancing data storage and retrieval capabilities within the blockchain ecosystem.
- Implemented new features for the streaming back-end based on RESTful micro-services with Golang in a CI/CD environment using AWS, GitHub, CircleCI, Harness and SonarQube
- Developed serverless Golang applications and deployed them to AWS Lambda via the AWS GO SDK.
- Supported a DeFi platform from Ethereum to Hyperledger, resulting in a 50% reduction in transaction fees and a 25% increase in platform user retention while maintaining cross-chain compatibility and security.
- Managed the successful launch of multiple tokens across various standards, including ERC20, ERC404, CW20, BEP20, BRC20, SPL, Token2022, and HTS, driving a 70% increase in user engagement through innovative tokenomics strategies and effective marketing campaigns.
- Pioneered the development of a Fractional NFT (Tokenization) proof of concept for illiquid assets, utilizing Solidity and the EVM, revolutionizing asset liquidity in the blockchain space.
- Integrated Ethereum-based smart contracts into the Cosmos ecosystem, allowing EVM compatibility and connecting decentralized applications (dApps) across networks.
- Demonstrated proficiency in CI/CD pipeline setup using GitLab for dev, QA, and prod environments, enhancing efficiency, and leveraging Slack for build notifications.
- Developed Dash 2.0, a high-performance analytics dashboard for Anderson Merchandisers using Golang (Gin), React, and GCP, processing 1M+ data records to deliver real-time sales and inventory insights, boosting forecasting accuracy by 10% and enabling data-driven decision-making.
- Led security testing, provided technical expertise for client interactions, and ensured 100% compliance with smart contract auditing standards through coordination with auditors.
- Wrote custom shell scripts to install Ethereum virtual machines and Docker on AWS servers, streamlining the deployment and management of blockchain and containerized applications.

Full Stack Blockchain Developer   10/2020 – 08/2021

BlockSpaces (Tampa, FL)

- Explored BRC-20 development for fungible tokens on Bitcoin, focusing on token issuance, transfers, and DeFi integration using the Ordinals protocol, which deepened my understanding of Bitcoin's expanding functionality beyond basic transactions.
- Developed an Exchange platform and a DEX using ReactJS, increasing transaction efficiency and user engagement.
- Developed comprehensive automated test suites using Go Testing, Jest, and Cypress, achieving 85% test coverage and reducing production defects by 40%.
- Led a ReactJS development team, improving project delivery speed by 30%, which helped secure a $500K funding round.
- Developed dynamic and responsive user interfaces using ReactJS, improving user engagement and reducing bounce rates through seamless integration of Redux and RESTful APIs.
- Resolved a performance issue in a React web application, where slow-loading pages were caused by inefficient state management, by optimizing component re-rendering with React's memo and useCallback hooks, implementing lazy loading, and using dynamic imports to improve loading times and overall performance.
- Developed and maintained shell scripts in Bash for program installations and maintenance, streamlining operations and improving efficiency.
- Developed scalable full-stack web applications using Golang (Gin, Echo, Gorilla Mux, GORM) for backend and React.js, Vue.js, HTMX, and Buffalo for frontend, enhancing performance, maintainability, and user experience across multiple client applications.

- Administered JIRA ticketing and Confluence documentation programs, ensuring smooth workflow and effective collaboration within the team.
- Executed change controls for planned maintenance and updates, resolving technical issues and ensuring seamless operations, including server and database patching and updates.

Smart Contract Developer   03/2019 – 08/2020

Messari (New York, NY)
- Created transactional Solidity smart contracts on Ethereum with ERC20 token as a in-world currency using which users can buy and sell different things from the shops inside virtual world.
- Led the development, deployment, and management of a widely embraced blockchain platform for the Advertisement space, utilizing geth POA network with validator nodes hosted on AWS, catering to a user base exceeding 210,000.
- Created in-built Tron wallet with TRC10 token (CDX) as in-game currency. Wallet can be created by user and in-game items can be bought with tokens.
- Spear-heading the creation of modular, privacy-preserving, access level control rich, cross-blockchain smart contracts using secure smart-contract libraries.
- Led technical mentorship, code reviews, and Agile best practices, fostering collaboration and skill development among junior engineers, increasing sprint velocity by 20%.
- Research and Development on various hybrid and private blockchain technologies including Zero Knowledge Proof and Layer 2 solutions.
- Automate 80% of deployment workflow by implementing effective CI/CD pipeline with better git branching strategy using various AWS services including infrastructure-as-code.
- Develop system and smart contract architecture for enterprise client requirements to carry out the development of web3- powered applications by deciding on an appropriate blockchain protocol.
- Implemented blockchain integration in the NextJS/React frontend by adding wallet connection, reading data, and interacting with smart contracts using wagmi lib and ethers.js.
- Implemented robust security measures to safeguard the servers against potential threats and attacks, ensuring the integrity and confidentiality of the blockchain infrastructure.
- Integrated third-party services and APIs, including Stripe (payments), Twilio (messaging), and Google Analytics (tracking), accelerating integration by 30% and expanding platform functionality.

Senior Software Engineer   03/2017 – 02/2019

Coderio (Miami, FL)
- Led the design and implementation of a microservices architecture for a healthcare patient portal, utilizing Golang (Gin) and RESTful APIs, reducing API response times by 30%, while ensuring HIPAA compliance.
- Orchestrated the migration of a legacy e-commerce platform to AWS, leveraging EC2, S3, and RDS, which enhanced application performance by 40%, reduced downtime by 90%, and increased online sales by 10%.
- Developed a real-time real estate analytics pipeline using Kafka, Golang (Gorilla Mux), enabling instant market insights and improving data accuracy by 25%.
- Designed and deployed a gRPC-based API for a healthcare application, optimizing server-client communication efficiency by 20% and reducing latency, involving Protocol Buffers definition, server and client implementation, and seamless backend integration.
- Architected and optimized RESTful APIs and gRPC services, facilitating seamless communication between microservices and improving API response efficiency.
- Strengthened API security by implementing JWT-based authentication and OAuth 2.0 flows, enforcing API Gateway request validation and input sanitization to prevent SQL injection and CSRF attacks, and utilizing CloudWatch and GCP Security Command Center for real-time traffic monitoring and anomaly detection.
- Engineered cloud-native applications on AWS and GCP, utilizing AWS (EC2, Lambda, API Gateway, S3, DynamoDB, RDS, SQS, SNS) and GCP (Cloud Run, Firestore, Cloud Functions, Pub/Sub), achieving 40% cost savings through serverless and containerized deployments.
- Enhanced database performance for PostgreSQL, MySQL, and MongoDB, applying advanced indexing, query optimization, and Redis caching, reducing query execution time by 50%.

Full Stack Developer   05/2016 – 02/2017

Provenir (Parsippany, New Jersey)
- Developed Restful APIs with Golang microservice architecture for nft marketplace, metaverse, bridge products.
- Designed gRPC microservices with gRPC-web for seamless frontend integration, achieving high-throughput (1K+ requests/second) and low-latency communication through Protocol Buffer optimization.
- Spearheaded cloud-native deployment strategies utilizing GCP (Cloud Run, Apigee, Pub/Sub, and Spanner DB) to ensure auto-scaling, transactional consistency, and cost-effective infrastructure.
- Developed and containerized microservices using Docker and Kubernetes (GKE), ensuring automated failover, horizontal scaling, and self-healing mechanisms to handle increasing workloads seamlessly.

- Implemented Google Spanner DB sharding, partitioning, and CQRS architecture to enable horizontal scaling, strong consistency, and multi-region failover, reducing query execution time by 45% and improving high-load transaction performance by 30% through MVCC and query tuning optimizations.
- Created interactive frontend components and complex data visualizations with React, Zustand, D3.js, and Chart.js, improving dashboard responsiveness and enhancing real-time analytics capabilities for business users.
- Established CI/CD pipelines with Jenkins, Terraform, and GitHub Actions, reducing deployment time by 40%, automating releases, and ensuring consistent infrastructure provisioning.

Projects

- **MeleCoin Development**
  https://melecoin.net/
  I worked as a part time blockchain architect and created core blockchain and sdk
  Core blockchain for Melecoin using Go and Tendermint
  Wallet for Melecoin accounts
  RESTful API Backend for Melecoin Treasury
  Blockchain Indexer using Nest Framework
- **Arhamsoft**
  https://nexus.arhamsoft.info/
  This website is a platform designed to help musicians and artists monetize their work through NFTs (Non-Fungible Tokens). It allows creators to mint their own NFTs and set resale royalty percentages. The platform supports NFT art, music, games, films, and immersive VR/AR experiences, aiming to empower both creators and collectors. Tech Stack was React frontend, Express.js for backend, MongoDB for database and Solidity for smart contract. This was a big project and 2 years ago, I have participated in this project backend and blockchain developer. I developed the Art NFT minting smart contract using Solidity. And I tested and deployed it on hardhat. Also I integrated multi-wallets on the project. I used Express for backend. We are distributed team and used the slack channel for communication.
- **Steam Exchange**
  https://steamexchange.io/
  Steam Exchange is a Canadian Fintech startup with a focus on learning, innovation, and scalable digital asset solutions applied across cryptocurrency, blockchain technology, and web2 -> web3 integrations. As a platform, Steam Exchange applies a hybrid approach that combines the best of both centralized and decentralized financial ecosystems. Steam Exchange was founded in 2021 and is registered as a corporation in Canada.

Skills

- **Blockchain Tech**: Ethereum, Polygon, Chainlink, Dapp, Binance Smart Chain, Zk-rollups, Hyperlaedger, Web3.js, Consensus Mechanism (POW,POS,DPOS,POC,POI), UniSwap, Metaverse, Ethers.js, DeFi, NFT, Smart Contract, GameFi, DEX, CEX, Tokenization, Security Auditing, Interoperability, Cryptocurrency, Bitcoin, Truflle, Hardhat, Foundry, Ganache, Tenderly
- **Program Language**: Solidity, Python, Go, Golang, C/C++, C#, React.js
- **Web Tech**: React, Angular, Vue.js, Next.js, Bootstrap/Tailwind, Node.js, Typescript, Javascript, Jquery
- **Database**: PostgreSQL, MongoDB, MariaDB, MySQL, SQLite
- **Environment**: Docker, Firebase, Kubernetes, Firestore, GitHub
- **Code Management**: Aws Lambda, Plastic SCM, Linux

EDUCATION

University of North Florida
Bachelor's Degree in Computer Science   09/2012 – 04/2016