William Morriss

Email : wjmelements@gmail.com

(github.com)|(bitbucket.org)/wjmelements

Mobile : 1-832-922-0072

EDUCATION

University of Texas at Austin   Austin, TX

Bachelor of Science in Computer Science: Turing Scholars Honors; GPA: 3.80   *Aug 2012 – May 2015*

- **Thesis**: "A Concurrent Dictionary and Wait-Free Queue from Compare and Swap"

EMPLOYMENT

VM Capital   Remote

Founder/CTO   *Feb 2020 - Present*

- **Lead Blockchain Engineer**:
  * **Smart Contracts**: Implemented and optimized dozens of smart contracts in Solidity and EVM assembly
  * **Auditing**: Discovered and disclosed 2 Critical vulnerabilities in 3rd party deployments
  * **Automation**: Engineered tooling to quickly debug reverts and detect vulnerabilities
- **Lead Backend Engineer**:
  * **go-ethereum**: Implemented state subscription system for backrunning and block updates
  * **ArbitrageEngine**: Implemented graph algorithm generalizing arbitrage for various DeFi protocols
  * **Automation**: Developed tools generating boilerplate from ABI and creating test cases from crash dumps
- **Engineering Manager**: Built and managed a team of engineers: triaging tasks and cultivating junior engineers
- **MEV Innovator**: Pioneered stablecoin arbitrage, backrunning, gas griefing, generalized batching, 2byte ABI

TrustToken   San Francisco, CA

Blockchain Engineer   *Oct 2018 - Feb 2020*

- **Contract Profiling**: Reduced TUSD transfer gas 70%, from 102591 to 30591, then the cheapest ETH stablecoin
- **Autosweep**: Patented feature improving wallet usability for merchants, exchanges, and OTC desks
- **Redemption addresses**: UX allowing TrueUSD redemption by transferring to a memorable redemption address

Consensys   San Francisco, CA

Blockchain Engineer   *May - Aug 2018*

- **MetaMask**: Prototyped mobile ethereum wallet and dapp browser
- **uPort**: Implemented EIP155 for iOS uPort

Snap   Venice, CA

Mobile Software Engineer   *Jun 2015 - Nov 2017*

- **Memories**: Created and shipped Memories for both iOS and Android
- **Messaging**: Owned the Android media pipeline, reduced video p99 latency 80% and video error rate 47%
- **Tools**: Created internal workflow scripts and pull request nagbot "Der Krampus"

RECENT PERSONAL PROJECTS

EVM   Jan 2020 - Present

github.com/wjmelements/evm

- Ethereum Virtual Machine assembler, disassembler, and debugger

Uniswap V4   Jul - Oct 2024

github.com/Uniswap/v4-core

- Merged three optimizations reducing swap gas

Paretto   Oct 2014 - Jan 2017

bitbucket.org/wjmelements/colors   *Formerly on the iOS App Store*

- iOS puzzle and survival game based on the four-color theorem

PROFICIENCIES

Languages (Expert)	C, C++, Java, Solidity, Python
Languages (Experienced)	Javascript, Go, Objective-C, Perl, Haskell, R, Prolog
Selected Tools	git, make, cURL, vim, bash
FINRA Exams	SIE, Series 7, Series 63
Misc	iOS, Android, Linux, Ethereum, SQL