

Manasbir Bagri

+1 (236) 971-0294 | bagrimanasbir@gmail.com | manasbir.github.io | [in/manasbir](https://in.manasbir)

Technical Skills

- **Programming** - Rust, TypeScript (TS), JavaScript (JS), Python, Solidity, Racket, Huff, C++, CSS
- **Frameworks**: React.js, Next.js, Tailwind, Foundry, SASS/SCSS
- **Design** - Figma, Photoshop, Inkscape

Education

Honours Mathematics Co-op, University of Waterloo

Expected 2027

- Distinctions: President's Scholarship

Experience

Software Engineering Intern/MEV, Protecc Labs

2023,2024

- Earned \$100,000+ implementing and optimizing novel MEV (Miner Extractable Value) strategies on Ethereum.
- Managed \$500,000+ by creating market maker functionality for NFT marketplaces on Ethereum in Rust and TypeScript.
- Created \$1,000,000+ in volume for client tokens with Rust and Typescript on Solana and Ethereum.

Contract/Freelance Developer

- Developed a perpetual futures protocol on Arbitrum with \$1.2+ million TVL using Solidity and Javascript.
- Secured 50+ first bids on the Foundation NFT marketplace by creating and optimizing strategies in TypeScript.
- Rescued client's Ethereum funds by developing a wallet monitoring script in Rust.

Software Engineering Intern, You are Matrix

April 2022 - July 2022

- Optimized turn-based blockchain game functionality in Solidity by minimizing storage and memory reads and writes. Reducing user transaction fee cost by 10%+.
- Built a comprehensive integration test suite for the game platform using TypeScript, reducing bugs and streamlining the development/iteration process.

Projects

Offline-Wallet (github.com/cesarhuret/offline-wallet)

ETHWaterloo 2023

- Facilitated offline cross-chain Ethereum payments using QR codes and private key signing with an app built in React Native and account abstraction infrastructure built in Solidity.

Watccha, Ethereum Wallet Tracker (github.com/manasbir/watccha)

2023

- Modular Ethereum wallet monitoring tool with generalized calldata decoding and notifications with the ability to react on-chain.
- Built app with Rust and used GPT 3.5 for decoding 4-byte and transaction data into natural language.

Square Root Algorithm Optimization (github.com/manasbir/sqrt-optimizoooooooor)

2022-2023

- Researched, Implemented, and optimized the integer square root algorithm in Huff, an EVM assembly programming language.
- Upstreamed implementation to Huffmate, the Huff standard library with over 400 GitHub stars.

F1 DRS Analysis (github.com/manasbir/f1-telemetry)

2023

- Python data analysis and visualization to measure the effectiveness of DRS between teams in the F1 2023 season.

UNAI, AI calendar/planner (github.com/manasbir/unai)

2023-2024

- Calendar that would adapt and learn to a user's specific needs. Built with TypeScript, Next.js, Tailwind, and GPT 3.5.

Sozu Mantle MultiFaucet (github.com/manasbir/sozu-hack-23)

SozuHack[01]

- Solved the issue of unfair testnet token distribution via merit-based multifaucet. Using on-chain data and proof-of-humanity to attest a user's merit to determine token distribution.
- Built smart contracts with Solidity, and the frontend with Next.js, Typescript, and Tailwind CSS.

Cycrane (github.com/sigmachirality/cycrane)

ETHGlobal New York 2023

- Send and sign EVM transactions just by using an email with an account abstracted wallet and ZK. Used zero-knowledge proofs to verify the contents and origin of the email. AA wallet built with Solidity, frontend with Next.js and Typescript.

Algo Risk Terminal (<https://github.com/andrewsiah/risk-terminal>)

ETHDenver 2023

- Risk management tool for trading teams in cryptocurrency markets. Check whether smart money is entering or exiting the market, and auto withdraw funds when smart money leaves. Also, determined the scale of all individual participants in the market. Built frontend, data-scraper, and analyzed data with Python.

Competitions

- **(Won prizes at all)** ETHDenver 2022 & 2023, ETHSanFrancisco 2023, ETHGlobal New York 2023, ETHWaterloo 2023, and Paradigm CTF 2022, Sozu Hack [01]