

Ali Shariatmadari

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Skills

Languages Python, C/C++, TypeScript/JavaScript, Solidity, Kotlin, Java, ARM & MIPS Assembly, SQL, Bash
Frontend React, Tailwind, Chakra-UI, Material-UI, Bootstrap, HTML/CSS, Photoshop, Illustrator, Figma, Swing, JavaFX
Backend Node.js, Express, Docker, Kubernetes, AWS, Hardhat, Ethers, IPFS, MySQL, MongoDB, Redux, GraphQL, Husky

Experience

Capsule – Software Engineering Intern

New York, NY | Sep 2022 – Dec 2022

- Spearheaded the development and release of a web3 application for decentralized memberships involving **wBTC** staking and on-chain proof-of-reserves, using **Ethereum** Smart Contracts and a **ReactTS** frontend deployed on **IPFS**
- Wrote smart contracts for memberships in **Solidity** with **OpenZeppelin**, and deployed contracts on **Goerli** Testnet with **Hardhat**
- Built a responsive website for minting, burning, and viewing of on-chain memberships using **Typescript**, **React** and **Ethers.js**
- Achieved **100%** coverage of smart contracts through automated integration and unit testing with **Hardhat**, **Mocha** and **Chai**

Bloq – Software Engineering Intern

Chicago, IL | Sep 2022 – Dec 2022

- Developed and deployed containerized infrastructure using **Docker** and **Node.js** for cryptocurrency staking on **AWS**
- Implemented **JRPC** and **IPC** proxy services for authorized execution and monitoring using **Docker-Compose** and **Express.js**
- Wrote a secure tool for real-time monitoring of services requiring multi-layer authentication in **AWS Virtual Private Cloud**

Bloq – Software Engineering Intern

Chicago, IL | Jan 2022 – April 2022

- Developed real-time profiling and automated backup tooling for managed blockchain nodes using **Node.js**, **Docker**, and **AWS**, expanding profiler coverage by **29%**, and increasing the efficiency of system-wide backup generation by an average of **200%**
- Redesigned the API architecture to support asynchronous request processing and dynamic service routing using an **NGINX** ingress controller on a **Kubernetes** cluster, enabling non-disruptive updates and improved scalability
- Integrated various blockchains into existing cloud infrastructure for use in institutional cryptocurrency staking

TD Bank – Software Engineering Intern

Toronto, ON | May 2021 – Aug 2021

- Led the development of a **React**-based banking dashboard with a focus on user customization and predictive content
- Built an ingestion pipeline for sanitation and predictive analysis of financial data, and visualized future predictions using **Chart.js**
- Co-led a 4-month research initiative on financial markets and presented actionable insights to **600+** staff and executives

Projects

DiVA 📄 – Decentralized Voting | **Hack the North 2021 Winner**

Solidity, web3.py, Flask

- Decentralized, anonymous, and fraud-resistant election platform powered by **Ethereum** Smart Contracts
- Won out of **1,700+** participants, received a developer grant from 1517Fund

CtrlAirSpace 📄 – Air Mouse | **Hack the North 2020 Winner**

Python, Mediapipe, OpenCV

- A gesture-based HCI enabling hands-free mouse and keyboard control using video-based multi-finger tracking and voice input
- Won out of **2,200+** participants

Vortex 📄 – Game Engine

Java

- A modular 2D game engine with adherence to OOP principles, display buffering, collision detection, and sprite map parsing
- Utilized the engine to build a two-player 2D shooter game based on the Portal series with support for user-created levels

Lia 📄 – Programming Language

Java, Swing, regex

- A statically-typed interpreted language with support for 2 primitive data types, math, loops, and type-checking
- Built a lexer using **regex** for input tokenization and an editor environment using **Swing** for code execution and error-handling

ShotSpot 📄 – Photography Map | **StarterHacks 2020 Winner**

Python, BeautifulSoup4, Selenium

- A live map of popular photography locations based on trending photos on Instagram
- Won out of **500+** participants

Education

University of Waterloo – Honour's Bachelor of Software Engineering (BSE)

Sep 2019 – Present

- Courses: Algorithms, Data Structures, Operating Systems, Architecture & Design, OOP, Compilers, Databases, User Interfaces