NATHANAEL OH

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EDUCATION

Johns Hopkins University Baltimore, MD

BS May 2025

- Major in Computer Science
- Minor in Mathematics
- GPA: 3.70

PROFESSIONAL EXPERIENCE

Lead Engineer: NestorHealth Fall 2023 – current

- Led the development of the primary web application used for clinical data management.
- Oversaw a team of 3 developers, managing their workflow and code reviews.
- Implemented numerous auxiliary FHIR related tools from scratch.
- Deployed services on AWS EC2 and RDS, maintaining full CI/CD pipelines.

Fullstack JavaScript Intern: Personal Digital Spaces (PDS) Summer 2024

- Developed an interactive developer portal for a cryptocurrency API.
- Collaborated with senior engineers to set up CI/CD workflows using GitHub Actions.

PROJECTS

Medfetch **– Web Application + Library** (C, Web Assembly, Typescript)

- Built and maintained a Next.js application to streamline server-side clinical data workflows.
- Created a thread-safe HTTP extension for SQLite in C and WebAssembly for client and server use.
- Integrated the SQLite extension seamlessly into the app's logic (on both the Browser and Server!).
- Demoed to early clients and raised over $20k in interest funding.

SQLite On WASM **– Library** (Web Assembly, Typescript)

- Designed wrapper utilities over ES6 modules to manage SQLite in Web Workers.
- Enabled seamless loading of custom SQLite extensions from the UI thread without blocking by extending the existing capabilities of the SQLite Worker1 API.

Testnet Faucet App **– Web Application (**Typescript, TailwindCSS)

- Added rate limiting logic to testnet faucet endpoints using Redis and Node.js.
- Migrated the legacy React app to Next.js with React 18 enhancements.
- Modernized CSS with Tailwind for a fully responsive experience.
- Integrate comprehensive unit and e2e testing into client's development workflow.

IBFT Cat Pictures **– Web Application + Bindings Library** (C++, Typescript)

- Simulated the Istanbul BFT algorithm using POSIX threads for concurrency.
- Developed Node.js C++ bindings for API-level access to the simulation.
- Integrated the backend with a React frontend to visualize consensus in real-time.