

EXPERIENCE

Unraid

Remote (Charlottesville)

- *Engineering Director - API Platforms and Cloud Services*
Principal / Staff Software Engineer

September 2024-Present

July 2022-September 2024

- **Director Role:** Achieved director level with leadership of the Unraid API and future integrations. Represented Unraid at conferences and continued to architect solutions to facilitate better OEM integrations, simplify user flows, and facilitate internal tools. Developed and integrated AI strategies and tooling to increase developer velocity and reach critical internal goals.
- **Cloud Leadership:** Developed a growth plan for cloud infrastructure at Unraid. Executed on short term and long term vision to create tickets and lead a team, resulting in less downtime, faster outage responses, and more robust infrastructure.
- **Infrastructure Development:** Oversaw and implemented sweeping infrastructure changes, moving 70,000+ users to AWS Cognito, designing and implementing serverless architecture for 50,000 websocket clients, and migrating to containerized clients from EC2 instances.
- **Unraid Connect:** Lead engineer developing Unraid Connect (connect.myunraid.net). Designed and implemented a tunneled GraphQL client to allow querying data from users servers remotely. Built backend systems using Nest.js with GraphQL codegen and custom Apollo directives to create a developer-friendly way to create tunneled queries. Wrote Vue 3 dashboards and implemented PWA architecture on the Connect dashboard.
- **Unraid API:** Developed Node API bundled with Vercel pkg to connect to a remote websocket server, sending requests over a single websocket stream. Utilized GraphQL Code Generation, Redux, and other tools to ensure consistent state and responses. Utilized shell execution, threading, and other low-level Node.js APIs.
- **PHP:** Redesigned a PHP key generation system by implementing strong unit testing, SOLID principals, and cryptographic libraries to ensure that Unraid Keys could be generated securely.
- **Retool:** Utilized Retool to rebuild company management tools in a more extensible way. Worked with support staff to enable the rollout of new dashboards for releasing Unraid OS, managing user accounts, and managing keys.

Harry's

Remote (Charlottesville)

- *Staff Software Engineer*

May 2022-July 2022

- **Ruby Development:** Shipped code and features to facilitate a sale, creating new methods for coupon functionality.
- **Leadership:** Worked with another engineer to build processes and perform code-reviews for team members.

Nabis

Remote (Charlottesville)

- *Senior Software Engineer*

February 2021-May 2022

- **Full Stack Engineer:** Used cutting-edge technologies like GraphQL on a distribution, sales, and finance Cannabis platform. Built features around warehouse management, QR code scanning and generation, item management, and shipping
- **Universal Cannabis API:** Lead engineer designing an industry standard API allowing data-sharing between Cannabis companies
- **Progressive Web App:** Architected and implemented a PWA with IndexedDB and service workers to allow offline functionality for a driver application including a custom offline function wrapper and offline predictive responses

WillowTree

Charlottesville, VA

- *Platform Software Engineer*

July 2020 - February 2021

- Software Engineer*

July 2019 - July 2020

- **Front End Web Engineer:** Engineered greenfield web ordering experience using Next.js with React and Typescript for a restaurant chain
- **A/B Test Engineer:** Built Optimizely tests using Optimizely Fullstack for a major media client, resulting in 30% cookie acceptance rate increase, 5% increase in new user sign ups, new show randomization feature, and new homepage design
- **Front End Web Engineer:** Developed financial landing page with focus on responsive design, accessibility, and speed
- **Android Slack Forwarder:** Programmed an Android application to forward 2Factor codes to Slack for shared accounts

- **WillowTree**

Charlottesville, VA

- Software Engineering Intern*

May - August 2017, May 2018 - May 2019

- **Dashcaster:** Overhauled service in React to automatically cast webpages to Chromecast devices
- **Dashboard Generator:** Designed and implemented company-wide dashboard generation tool to allow team members to gain project insights
- **Wombats:** Implemented new animation features, responsive UI, and additional back-end functionality to a ClojureScript game developed to educate students

- **Tech Dynamism**

Charlottesville, VA

- Software Engineering Intern*

May - August 2016

- **.NET Framework:** Implemented features on production employee management system to add additional capabilities and increase code coverage by 100,000 lines

EDUCATION

- **University of Virginia**

Charlottesville, VA

- Bachelors of Science in Computer Science*

Aug. 2017 – May. 2019

- **Rochester Institute of Technology**

Rochester, NY

- Honors Program, Dean's List*

Aug. 2015 – Dec. 2016

PROJECTS

- **Escape Room Color Box:** Built an escape room puzzle using an Arduino, servo motors, and an addressable LED strip to open when a combination was entered correctly
- **Arduino Door Lock:** Developed wireless door lock using RFID reader and ESP-32 micro-controller
- **Flushed To Learn:** HackUVA 2017 Best Hardware Hack - Smart Toilet

SKILLS

- **Languages:** Typescript, PHP, GraphQL, SQL, JavaScript, Python, Docker
- **Technologies:** AWS (EC2, ECS, ECR, RDS), React, Redux, Apollo, Node, Vue.js, IndexedDB, Postgres