

HENRY ZIMMERMAN

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EDUCATION

Rochester Institute of Technology
BS Software Engineering

Rochester, NY
Aug 2014 - May 2019

EXPERIENCE

Ocient

Software Engineer (Co-Op)

Chicago, IL

Aug 2016 - Jan 2017 | May 2017 - Aug 2017

- Worked on Angular 2+ web configuration interface for custom distributed database product.
- Wrote internal tool for performance monitoring.

MedPoint Digital

Software Engineer (Co-Op)

Evanston, IL

Jan 2018 - May 2018

- Built internal tool for service uptime monitoring.
- Migrated document storage from self-hosted solution to Azure.
- Audited and provided guidance for existing and emergent security vulnerabilities in core product.

PROGRAMING EXPERIENCE

Proficient: Rust, TypeScript

Familiar With: C#, Java, Docker, PostgreSQL, React, Angular 2+, WASM, Shell

Working Knowledge: JavaScript, Python, MS SQL, C, C++, Android

PROJECTS

Ocient DB Configuration Client *NodeJS, Angular 2+, TypeScript, Protobuf*

Worked on a small team to develop the backend and frontend of a webapp that facilitated the configuration of a massive distributed database and analytics engine. Learned and became proficient in Angular 2 and web development best practices. Created pages for adding nodes to the system and configuring machine learning algorithms to run on clusters of those nodes.

Ocient Performance Monitoring Tool *C++, Protobuf, NCurses*

Implemented the frontend terminal user interface for a distributed database performance measurement tool. I learned C++ and used it to create a realtime display of performance counters embedded in the database engine. The tool is used by the backend database team to assess the effects of their changes on the performance of the system.

MedPoint JWT Security and Performance Audit *C#, .NET, JWT, Javascript*

Independently discovered, extensively documented, wrote proof of concept attack, and provided solution specification for an ineffective Json Web Token implementation that did not adequately provide authorization to REST API endpoints. I also provided a specification that would reduce database utilization by the authorization system by at least an order of magnitude.

MedPoint Uptime Monitoring Tool *C#, .Net Core, Angular 2+, Typescript*

Wrote an internal tool that would record the recent uptime for the company's services and display them in a webapp.

EXTRACURRICULAR ACTIVITIES

RIT Men's Crew

Rowed and Coxed for RIT's 2nd Varsity 8

Fall 2014 - Spring 2017