Thomas **Harmon**

Software Developer · Rust Enthusiast

Based in Bay Area, CA. Searching for hybrid and remote Rust roles.

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Skills

Languages	Rust, Java, JavaScript, Kotlin, SQL (Oracle, Postgres), Python
Frameworks and Tools	Spring, React, NodeJS, GitLab CI, Docker, Linux, Git, npm, Gradle, Nginx, Tomcat, Bash
AWS	EC2, ECS, CloudFormation, IAM, RDS, Lambda, Step Functions, S3, CloudWatch.

Work Experience

PowerAdvocate — *Boston MA*

Software Engineer II — *March 2021 - Present*

- Supporting Oracle to Postgres migration for large monolithic codebase with 1M+ LOC.
- Design and implementation of a serverless architecture for a Renewables Cost Asset Modeling system.
- Supervisor to coops, mentoring them to develop+achieve goals and excel in transition to full time roles
- Configured Lerna, a monorepo tool, to optimize the build and release pipeline for all major internal React Apps and packages. Save each team 4 hours per each weekly release and makes local dev setup a breeze, saving dozens of hours per month.
- Automated CD pipeline for in-house data pipeline framework using AWS CloudFormation and GitLab CI

Software Engineer I — *May 2020 - March 2021*

- Developed company's first accessible and mobile-focused web application using React, SpringBoot, Elasticsearch, and Oracle
- Optimized React build process used daily by every dev, reducing execution time by 32 minutes or 55%
- Migrated 75 repos from SVN to Git and setup CI to support NodeJs & Java microservices, React Apps & JS libraries, for 90 devs
- Scripted a migration of internal JSPWiki to wiki with markdown, increasing interest in maintaining documentation.

Software Development Co-op — *July 2019 - March 2020*

- Collaborated by pair programming in an Agile environment to create a spend analysis microservice using Spring Boot
- Developed NodeJS microservice allowing analysts to search by using Elasticsearch, increasing searching accuracy

Northeastern University RIVeR Laboratory — *Boston MA*

Undergraduate Researcher | Python, C++, OpenCV, ROS — *Jan. 2018 - July 2018*

- Leveraged the OpenFace library for racial recognition and implemented a person following package for the Toyota HSR robot
- Placed 4^{th} internationally in the RoboCup@Home competition in Montreal, Canada as part of a team of 6 researchers

Draper Laboratory — *Cambridge MA*

Advanced Concepts Co-op | Java, ANSYS — *Jan. 2017 - July 2017*

- Created a Java application to convert system engineering models between OpenMETA and sysML formats

Technical Projects

LiquidML | — *Boston MA*

Distributed Systems, Data Analytics | Rust — *February 2020 - April 2020*

- Created a distributed and scalable Rust application for data analysis on data sets too large to fit into memory. Wrote extensive documentation, available at (docs.rs/liquid-ml). Designed an API which allows users to easily implement User-Defined Functions to preform their own data analysis without worrying about the complexities of distributed systems or performance
- Implemented decision tree and random forest machine learning algorithms with the application's API
- Includes a high performance, multi-threaded, file parser capable of inferring the schema of the data being parsed (docs.rs/sorer)
- Analyzed performance under various circumstances using 'perf' and flamegraphs

GShell | — *Boston MA*

System shell | Rust — *Sep. 2019 - Present*

- Implemented a system shell for Unix Platforms using a custom lexer and parser to construct ASTs from user input. Supports common bash syntax and operators such as pipes, redirects, boolean operators, etc

Education

Northeastern University | GPA: 3.846/4.0 | Magna Cum Laude — *Boston MA*

Bachelor of Science in Computer Science and Computer Engineering — *May 2020*

Courses: AI, Algorithms & Data Structures, Software Development, Object Oriented Design, Computer Systems, Database Design

Extracurricular: Vice President of Wireless Club, an Electrical Engineering club. Hosted various hackathons and workshops

Interests: Trader Joes, glassblowing, surfing, reading, skiing, hiking

Last Updated: June 2022