Ryan Saperstein

rmsaperstein@gmail.com ◇ (908) 797-6374 ◇ Flemington, NJ ◇ https://github.com/rmsap
https://www.linkedin.com/in/ryansaperstein ◇ https://rmsap.github.io/

EDUCATION

Northeastern University, Boston, MA
B.S., Computer Science, Concentration in Artificial Intelligence, GPA: 3.93 / 4.0   September 2021 - May 2025
Honors: Summa Cum Laude
Coursework: Software Development, Programming Languages, Computer Systems, Web Development, Natural Language Processing, Machine Learning & Data Mining 1 & 2, Theory of Computation, Object-Oriented Design, Algorithms, Fundamentals of Computer Science 1 & 2

COMPUTER KNOWLEDGE

Proficient: Java, Python, Linux, JavaScript, TypeScript, Git, Jira, React, React Native, Racket, HTML/CSS
Familiar: Node.js, Scala, Redux, C, Kubernetes, PostgreSQL, MySQL, GCP, AWS, Azure, Docker, MongoDB
Interested: Go, Rust, Machine Learning (neural networks, natural language processing, etc.), Robotics

EXPERIENCE

Generate Product Development   Boston, MA
Tech Lead   August 2024 - December 2024
- Led a team of six engineers on a mobile app project for a client, including creating and assigning tickets, planning software architecture, and assisting development on a Native/TypeScript frontend and Go/SQL backend
- Implemented CI/CD through GitHub Actions

Broad Institute of MIT and Harvard   Cambridge, MA
Software Engineer Co-op   January 2024 - June 2024
- Implemented support for a new WDL (Workflow Descriptor Language) spec in our execution engine in Scala
- Discovered a bug in our integration testing framework and rewrote it to accommodate a wider range of tests
- Implemented front end features and upgrades in React/TypeScript in response to feedback from key users
- Triaged deployment issues on GCP and Azure

VMware   Boston, MA
Co-op Member of Technical Staff   January 2023 - December 2023
- Increased efficiency by developing a workflow debugging tool that parses internal and external log bundles
- Developed and tested additional features and bugs for VMware Cloud Director, VMware's flagship cloud service delivery platform, including upgrades and modifications to a RESTful API and PostgreSQL database

Saperstein Software Solutions   Remote
Owner and Software Developer   March 2022 - Present
- Developed two mobile applications for a New Jersey based non-profit: the Help App and RecoverWE
- Implemented a React Native front end and Python/SQL backend to provide resources in an easily accessible format

Northeastern University   Boston, MA
Teaching Assistant for Fundamentals of Computer Science 1   September 2022 - December 2022
- Held 4+ office hours per week to provide individual support and one-on-one tutoring to students
- Supported faculty by grading and assisting with labs each week

PROJECTS

Bazaar (Clojure)   September 2024 - December 2024
- Implemented the board game *Bazaar* including automated game play with deterministic player strategies
- Developed a distributed system using client-server architecture, allowing players to interact in real-time across nodes

SigLo (Python, OpenCV, MediaPipe)   February 2022
- Adapted a pre-trained neural network to identify hand motions to control a computer from afar
- Won HackBeanpot 2022 Most Technically Challenging Project

Image Processing Application (Java, Java Swing)   June 2022
- Enables a user to load, save, and manipulate images, including flipping, resizing, and applying a filter