Adam Raine

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Skills:

- **Languages:** TypeScript, JavaScript, HTML, CSS, C++, C, Python, Java, SQL, bash
- **Software Experience:** Node, Chrome DevTools, Chrome DevTools protocol, puppeteer, React, Preact, CSP, git, Linux, Docker

Work Experience:

Google – Software Engineer *(Remote, MI / San Francisco, CA)* **June 2020 – Current**

- Team lead of Lighthouse Core, a web page auditing tool that measures Core Web Vitals (CWV) and provides insights on performance, accessibility, and SEO
- Contributions to the Lighthouse Github repo, Lighthouse NPM package, Lighthouse panel in Chrome DevTools, Chromium, and PageSpeed Insights
- Developed Lighthouse user flows to audit web pages beyond the initial page load. Implemented new UX to display reports for multiple user journey steps in a unified flow report
- Created new audits for: determining back/forward cache eligibility, ensuring CSP strictness, identifying non-composited animations, and others
- Adjusted performance insight prioritization to focus on estimated performance metric impact (CWV, etc)
- Implemented a strict CSP on web.dev, providing extra defense against XSS for blog users
- Restructured codebase to enable user import of TypeScript declarations

Google – Software Engineering Intern *(Waterloo, ON)* **May 2019 – August 2019**

- Individual contributor of the Chrome Animations team working on CSS Paint
- Increased the animation type compatibility for CSS Paint when running on a separate thread. Developed a main thread fallback for paint functions that had unsupported animation types

Bosch Automotive – Embedded Software Intern *(Farmington Hills, MI)* **May 2018 – August 2018**

- Individual contributor to engine controllers software used in Ford vehicles
- Developed an industrialization block holding memory layout information
- Developed tests for analog signals to solenoids and starter motor fault detection circuits

IBI Group – Electrical Intern *(Southfield, MI)* **February 2016 – April 2016 / May 2017 – August 2017**

- Contributed to electrical plans of facilities for GM, Toyota, Ford using Autodesk Revit

Education:

University of Michigan **September 2016 – April 2020**

- Computer Science BSE, College of Engineering
- **Relevant Coursework:** Conversational AI, Computer Vision, Web Systems, Operating Systems, Database Management Systems, Computer Security, Data Structures and Algorithms

Citizenship:

FIRST Robotics – Team 2834 Captain, Lead Programmer, Alumnus **January 2012 – Current**

- Developed robot software for autonomous operation and user input
- Tuned PID controllers on digital sensors and processed visual input from a camera feed
- Lead team meetings every week and mentored new team members
- As alumnus, volunteered at FIRST events and participated in FIRST networking

Triangle Fraternity – Academic Chair **December 2017 – April 2018**

- Responsible for meeting with new members to discuss academic goals
- Coordinated academic mentoring within the organization

UM::Autonomy – AI Team **September 2016 – January 2017**

- Member of software sub team responsible for developing software to control the autonomous boat
- Created a PID Tuning tool to improve accuracy of the boat's movement in simulation