Adam Raine

asraine@umich.edu

(248)-882-5221

2946 Rambling Way

Bloomfield Hills, MI 48302

Education:

University of Michigan   **September 2016 – (Expected) April 2020**

GPA: 3.88

- University of Michigan, College of Engineering
- B.S.E. in Computer Science, minoring in Physics
- **Relevant Coursework:** Operating Systems (EECS 482), Database Management Systems (EECS 484), Introduction to Computer Security (EECS 388), Foundations of Computer Science (EECS 376), Data Structures and Algorithms (EECS 281), Introduction to Computer Organization (EECS 370)

Skills and Languages:

- **Programming Languages:** C++ and C, Java, Python, SQL, JavaScript, Perl, MATLAB, LabView, C#, HTML
- **Platform Familiarities:** Windows, Linux, GDB, Git, Visual Studio

Work Experience:

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

- Worked on CSS Paint for the Chrome Animations team
- Increased the compatibility for CSS Paint when running on a separate thread. Certain data types were not supported on the secondary worklet thread, so I developed a process to fall back to using the main thread in the case of a paint function requiring one of the unsupported types

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

- Responsible for writing and testing software for engine controllers used in Ford vehicles
- Developed unit tests for analog signals to solenoids and starter motor fault detection circuits
- Developed a Perl script which constructs an industrialization block holding memory layout information to be used by Ford. The script was programmed to accept different memory layout configurations as input, and produced a hex file as output, created in a format to meet Ford specifications

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

- Worked in Autodesk Revit to make electrical plans of facilities for GM, Toyota, Ford, and other companies
- Maintained project management timing spreadsheets for program managers who used the spreadsheets to optimize the number of manhours used on the company's projects
- Worked in C# designing Autodesk Revit plugins to streamline building design

Extracurriculars:

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

- Worked on the sub team responsible for replaying the autonomous boats movement in a simulation and using that information to adjust movement algorithms
- Created a PID Tuning tool to improve accuracy of the boats movement which can be used to adjust PID controllers to optimize the accuracy of the boat's movement

FIRST Robotics Team 2834 – Lead Programmer   **January 2012 – April 2016**

- Created a program to allow the robot to operate both autonomously and with user interaction
- Programmed with National Instruments vision libraries to analyze a camera feed, then autonomously target and launch balls into elevated goals
- Tuned PID controllers on digital sensors for the shooter motor, allowing the user to adjust the shooter's power
- Programmed a gyroscope and tuned a PID which allowed the robot to control its angular heading autonomously

Leadership

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

- Responsible for meeting with new members to discuss academic goals
- Coordinates academic mentoring within the fraternity

FIRST Robotics Team 2834 – Team Captain   **January 2012 – April 2016**

- Lead team meetings every week and trained new programming team members
- Mentored newcomer robotics teams in programming and robot operation