Connor F. Henley

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Dear Hiring Professional,

I am a second year student at the Rochester Institute of Technology (RIT) in the Computer Engineering Dual Degree (BS/MS) program, seeking a co-op position in the computer engineering field between mid-May and mid-August 2018.

Through my coursework and personal projects, I found that I have developed strong skills in software and hardware development. In my programming courses, I worked on multiple projects that enhanced my problem-solving skills, teamwork skills, and programming skills. For example, in my Introduction to Software Engineering class, we learned modern software development techniques (Agile) and applied the concepts by working on a group project, the WebCheckers project. Furthermore, in my engineering courses, I studied analog and digital electronics, with an emphasis on computer hardware, in which I learned about basic analog and digital circuitry, VHDL, and basic CPU design.

Moreover, I have worked on several personal projects outside of class to further my knowledge. Since middle school, I have been involved in the FIRST robotics program, which is a program for encouraging people to get interested in science, technology, engineering and math (STEM) through competitive robotics. In 6th grade, I joined the FIRST Lego League (FLL) team and brought my team to the state championship for the first time in 8th grade. I then went on to the FIRST Robotics Competition team in high school, where I led the controls sub-team and was the co-captain of the team my senior year. I also worked on extra projects for my FRC team, for example, I wrote a library for a swerve drive-train. In FRC, a swerve drive-train uses four high-traction wheels (one in each corner) that can be rotated to the optimal angle, allowing the robot to go in any direction without the traction loss that other solutions provide. On this project, I learned a lot about the software design process, good documentation, and using version control. Once at RIT, I have continued being involved in the FIRST community by joining the RIT FIRST club, where we mentor local teams and volunteer at events. Additionally, we work on a project for the Imagine RIT creativity and innovation festival, where we build a scaled down version of FRC from the ground up, where I have learned a lot about debugging a project, improved my teamwork skills, and learned about simple analog electronics.

Furthermore, I am continuing to learn about working with embedded systems, hardware, and software by building and modifying 3D printers. One of my personal projects was building a 3D printer from scratch, where I got to apply what I learned in the classroom. I also learned more about hardware and software when I had to debug issues on my printer, like print quality defects and clogging.

Furthermore, my experiences in the FIRST robotics programs taught me the importance of leadership, communication, and teamwork, which are one of the three important aspects of a successful organization. As I mentioned above, I was the lead of the controls team for three years and I led the team to win the Innovation in Controls Award. Additionally, I was elected to the co-captain position my senior year, and led the team to the district championship for the first time since it's introduction in 2014. These positions also taught me a lot about how to divide work, manage people, and communicate better in a small group. Using the skills I gained in FIRST robotics, I found myself leading group projects in the diverse RIT community.

All these experiences enhanced my knowledge in computing and engineering, but they have also improved my ability to work effectively in a fast paced, mission focuses environment with people from diverse backgrounds. In addition, my multiple interactions with the diverse RIT and FIRST robotics community have enhanced my verbal communication and interpersonal skills to be effective in a diverse discourse community.

I believe that I am qualified for your co-op position and I know that I would be a valuable asset to your organization. I would appreciate the opportunity to discuss my qualifications in more detail.

Sincerely,
Connor F. Henley