My name: Charles Bennington Date: 12/28/2021

#### Prompts:

Show evidence of curiosity, creativity, commitment, uniqueness, effort, and resilience. We are excited to see your talent, read your writing, watch your robots, envision your business plan, accompany you in your service, dream with you about your future, or whatever you would like to share.

### I showed Effort, commitment, and creativity through my robotics team

In 2019 my Ballard High School Robotics Team made it all the way to the World Championships in Houston. We wanted to follow up on that spectacular performance in 2020-21, but most of the team had graduated, leaving behind only a few senior members. It quickly became clear that we needed to train up new members to make sure we could have fresh ideas.

As programming lead my junior year, I was tasked with helping design a new learning curriculum for the programming team. Covid made teaching difficult, as we were training students remotely to program a robot they couldn't actually see or touch. Thus we decided to rebuild our 3-month learning curriculum from scratch. We started by making a list of skills we thought our new members needed. Over the course of 7 three-hour meetings, the other team lead, an adult mentor and I designed and built a curriculum to help students develop critical skills. Then as team lead, I was responsible for teaching and mentoring a group of 5-6 students as they progressed through this curriculum.

One meeting I noticed that a newer member was missing, so I messaged him. William responded saying he was busy. So after the meeting ended, I decided to stay until 10 pm to put together a slideshow that contained a boiled-down version of the material we had learned. During the next meeting, I pulled him aside and gave him a mini lesson so he'd understand what we were working on. After the meeting, he thanked me for the individual tutorial. In this case, my routine of looking out for fellow team members to make sure they didn't fall behind, taking charge and helping others (even when I didn't have to), and staying up late doing a project that wasn't required really paid off. This fall William assumed a leadership role as a programming team lead.

Our online meetings usually started with a lecture conducted by our team mentor, then students would try out programming problems, and come back to us leaders when they ran into issues. The questions students posed typically forced me to do my own research to more accurately answer and help them understand the concept. For example, one student asked me where the "Java Development Kit" comes from, which led me to research how a programming language is made. Although unrelated to robotics, I convinced the mentor to give a lecture on the topic, because I thought it was interesting. Working this closely with students new to robotics led to a

period of great growth, because it challenged me, gave me specific research goals, deepened my research, strengthened my teaching skills, and heightened my love for programming.

Being part of the robotics team for three years has shifted my personality, making me more confident to propose new projects and willing to try new ideas when old ones don't work anymore. It's taught me that working in a team is an essential skill that I will use in school, work, and future projects. And my interest in computer science has flourished in ways I hadn't predicted, opening up new opportunities to collaborate with friends on smaller projects, such as learning JavaScript, a programming launguge, for robotics.

While working on all of these projects I used a website called "GitHub" to transfer and send code from member to member. It's like google drive but for programming. Throughout a project GitHub tracks each members contributions and stores them, allowing you to see how much each user has committed to the project,

Below is a screenshot of a "GitHub contribution map" from a react native project I worked on with a few robotics friends. As you can see, this was a major programming project for me (I am cbennington852), and I really enjoyed working on this project. We never got it to fully work but it was fun to explore javascript and react-native.



The app we were making was a fitness app that would track the user's running distance and movement by connecting to a bluetooth device that would be attached to the user's ankle. We were able to get the app user interface working, and the tracker working, but we ran out of time before we could get the bluetooth part of the app working.

We divided up jobs between the four of us. I got the user interface working, and Caden(canewton) worked on the back-end code as well as helping out with the user interface. We didn't always work effectively as a team, so when that happened we would have an online meeting and talk things over.

We submitted this project as a part of the FRC "innovation challenge", which was the FIRST robotics challenge for 2020.





 $\longleftarrow A graph that would show the$ 

users running velocity overtime, as well as some important data



 $\longleftarrow A graph that would show how long it took for the User to complete a 100 meter sprint, in a bar graph. The graph displays all of the user's times.$ 

I had a lot of fun working on these projects with friends, and it was a learning experience that prompted me to sign up for AP computer science in my senior year of high school. I felt that these projects really helped me grow as a person, by making me more confident and more willing to new ideas

# I showed uniqueness through my experiences with other people

The summer after junior year I interned at Hematologics serving as an assistant to one of the IT staff members. My duties mostly included assembling cardboard boxes for Fed-Ex shipments and assembling furniture for the other employees.

During this experience, I learned how a blood testing lab operates and how much behind-the-scenes computer technology is required to keep the lab running. However, the most valuable experience I gained was the ability to work with different types of people. For example, in talking with a worker who had immigrated from Denmark, she shared what it is like to live in America versus Denmark, including that work hours in Denmark were much shorter, and employees are given more time off. I learned that when working with people who are different from you, you should listen and be kind.

I also learned better ways to deal with failure. For example, when I was transporting large jugs of saline, about halfway through the job, I dropped a jug and it started leaking. At first, I tried to cover it up, but then I realized that wouldn't work. I went upstairs to find my boss and informed him of what happened. He came downstairs to help me clean it up, and said it was fine and that it happened all the time. I learned that it is always best to own up to your mistakes and try to improve.

## I have other hobbies too

In my spare time I like to take pictures of hikes, it's not a particularly academic skill, but I have fun doing it, and I believe that it displays that I am a well rounded person.



## What I hope to become

At Gonzaga University I hope to continue to further my leadership skills and continue to grow as a person. At your college I wish to build and program robots, and I hope that I can follow my dream. In August I did a virtual tour of your institution and I was impressed. I liked your computer science program, And I am really excited for the chance to attend the Gonzaga Honors program. I hope that in the future you can read my writing and watch my robots.