

The senior design project is an opportunity for me to learn new skills that will propel me to land a job that I want after college. One of the fields in computer science that I'm interested in is working with Front end. For our senior design project, we will be building a website that will allow users to create neural networks based on their needs. This involves a lot of front-end work. The technical skills I'll gain over the course of this project will be front end development skills such as knowledge in the svelte framework. The other few non-technical skills I hope to gain are working productively with a small team and communication.

The college curriculum has allowed me to take courses to further my knowledge and prepare for my senior design project and my future. Some of the classes I took that really helped me were Python Programming, Data Structures, Programming Languages, Intro to computer Systems, Intro to Operating Systems and Software engineering. Python Programming helped me learn python which is one of the languages we will be using. Programming languages was a super interesting course that broadened my knowledge on coding, and data structures was great to learn the basic concepts of data structures we use every day when coding. The college curriculum has helped me a lot, however I haven't taken a lot of courses that go over front-end coding. Most of my front-end is through personal work I've done over the years.

Next, I'm going to be talking about my Co-Op experience. My first two rotations were at Siemens where I was a back-end developer fixing bugs and making sure our database and cad software were properly synced together. During the second half of my second rotation, I took some time to build a Nx Launcher with WPF (Windows Presentation Foundation) a framework that allowed us to build the launcher. This heightened my interest in working with front-end and it let me dip my feet into the skills needed to become a front-end developer. I gained a lot of experience in the corporate setting and learning how to communicate effectively with people. After that, I took classes and work on a project with a Czech company in Prague. We built a waste scan calculator, and I think the most important thing I learned was how to create different "phases" for building a product.

There are a few reasons why I'm interested in participating in this senior design project. First is I really want to be able to put a solid project on my resume. Next is I want to enhance my skills in html, CSS, typescript, and python. My teammates are super knowledgeable, and they will be a great way for me to learn and stay focused throughout the project. Finally, I think our project is super interesting and will fill in a niche that will help many people out when building

neural networks. I think our preliminary approach to designing a solution is to first assign roles and phases of designing our solution. We will have mandatory weekly meetings, and biweekly meetings with our mentor to see if we're on the path to success.

Our expected accomplishment should be to have a functional neural network builder, with many build options such as Convolutional neural networks, recurrent neural networks, etc. We also want to build a front-end UI. Over the course of the semesters, I will evaluate my contributions based on how many commits I'm making, how willing I am to take on extra work, and if I'm getting my work done on time. There is the obvious such as meeting with the team on a weekly basis. I think we will know when we are done when we have gone through the stage of fully building the website and we spent some time getting rid of bugs. Overall, I'm excited for this senior design project!