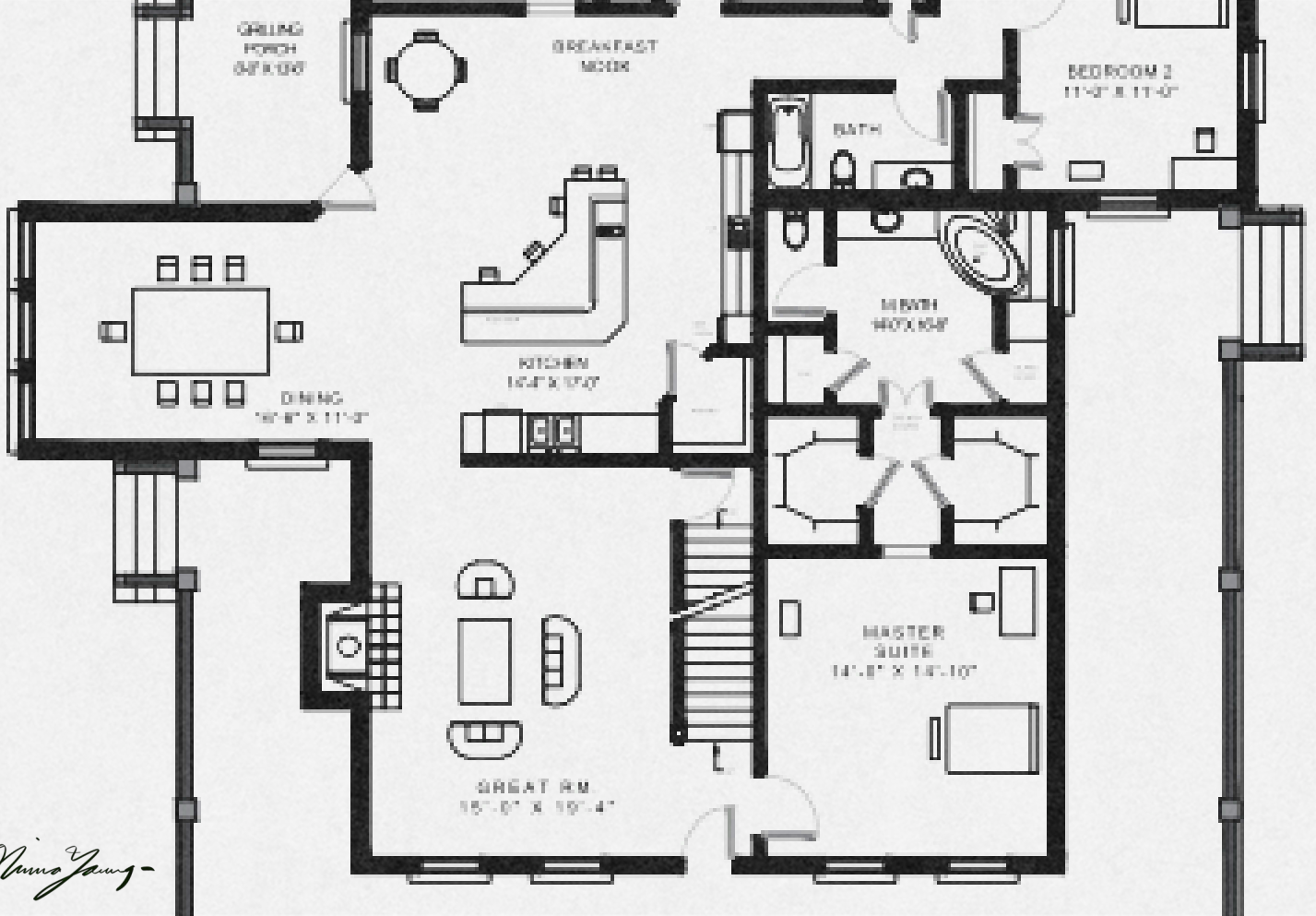




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C A D

PORTFOLIO

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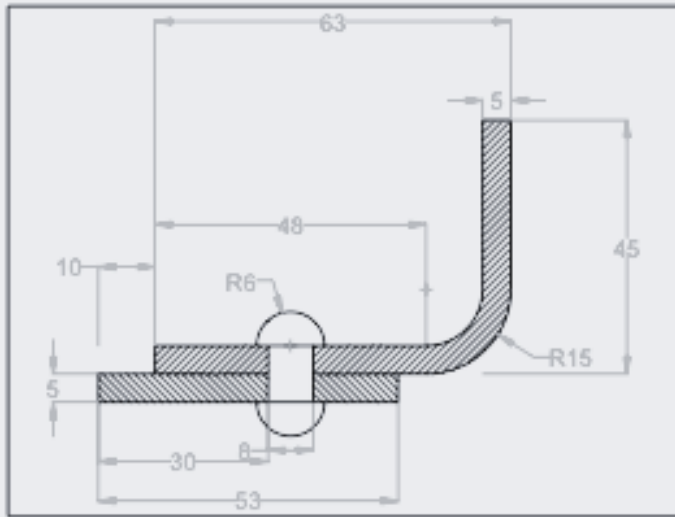
NEXT
STEPS

Nima Young

As a promising civil engineering student, I take pride in my natural CAD aptitude. I find that the three most important traits in my personality toolbox are creativity, problem solving, and resilience. You will delve deeper into some projects where one or more of these traits were employed and how they set me apart from others in the industry.



The Basics

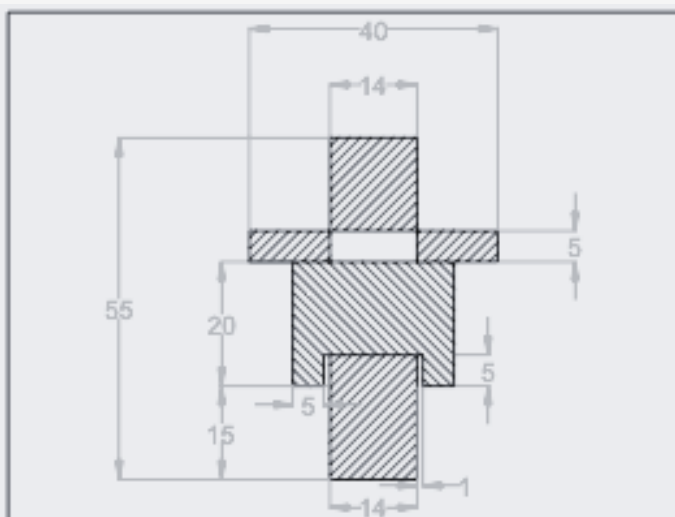
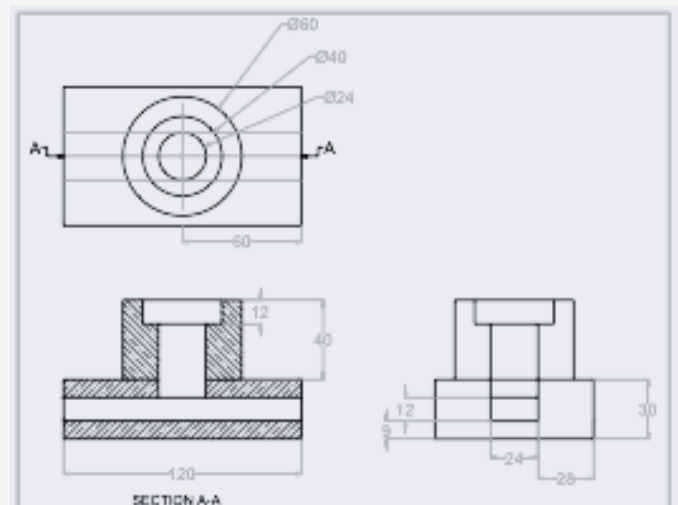


I was first introduced to AutoCAD in my Engineering Design class during my undergraduate studies.

Throughout this course, I was introduced to the basics of AutoDesk CAD software and some others such as Sketch-Up.

The foundation of my CAD knowledge lies in some of the following main concepts and tools.

- Draw
 - Line
 - Polyline
 - Spline
 - Circle
 - Arc
- Hatch
- Block
- Modify
- Annotate
- Dimension



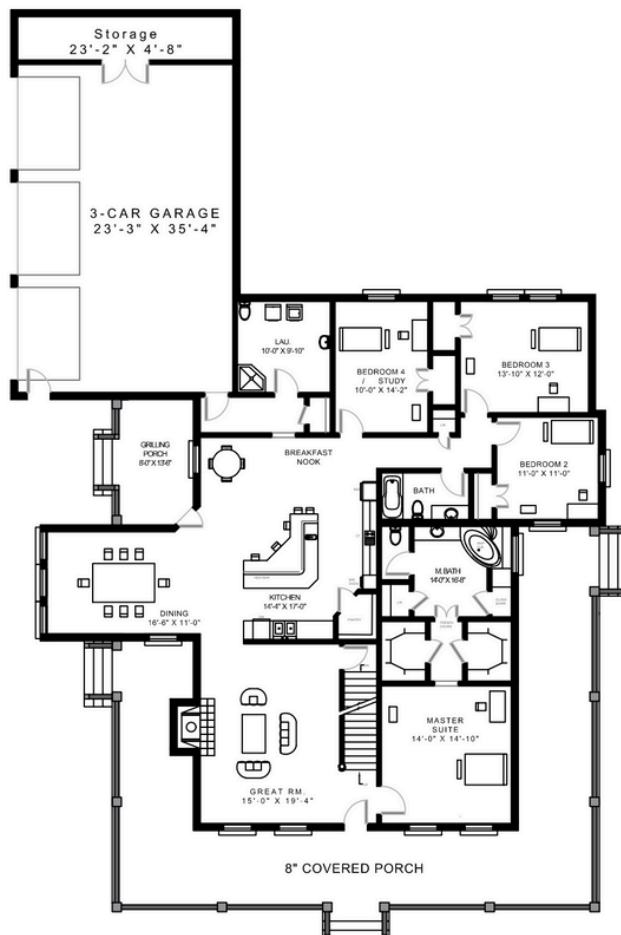
Leveraging a positive attitude, determination, and creative problem solving, I am able to employ these fundamentals, creating portals between dreams and reality.

The next sections of my portfolio will walk you through some highlights of my journey, giving you a better idea of what I can do for your company.

Main Project

As my Main Project, I was tasked with designing a floor plan. The floor plan presented is a 2-Dimensional model of a breathtaking estate, perfect for modern living. The first floor, modelled below, includes family, dining and lounge rooms, kitchen, laundry, four bedrooms (including Master), paddle room, and breakfast nook. The main living space connects to the basement, upper floors, the garage, and porch.

Attached to the plan is a thorough report of all necessary analyses, including dimensional analysis and an in depth bill of sales (BOS) specifying required furniture.

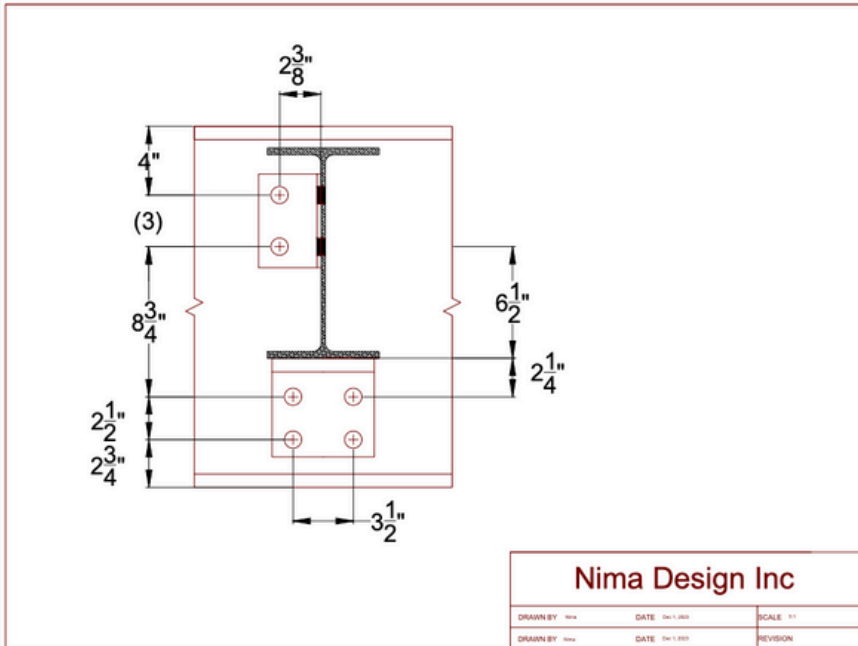


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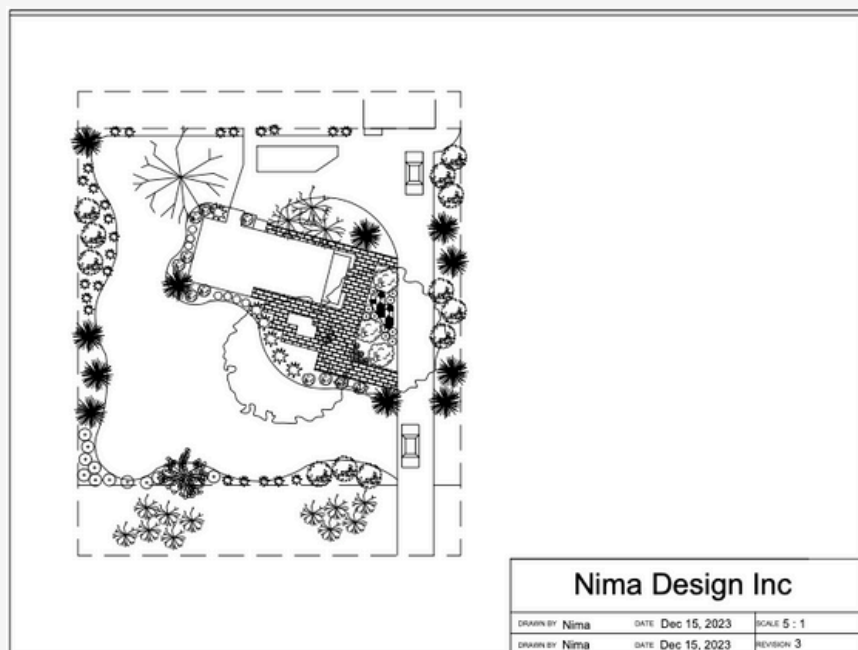
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Creative Project

The second phase of my Project included two parts.



During part one, I delved into analytical problem solving through the design of a standard beam used in Civil Engineering practice.



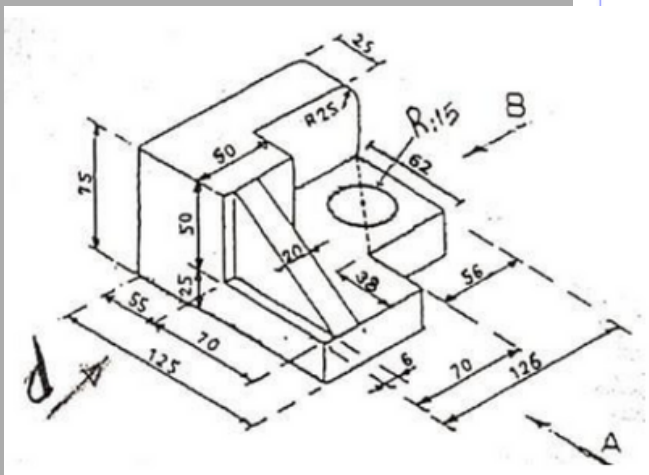
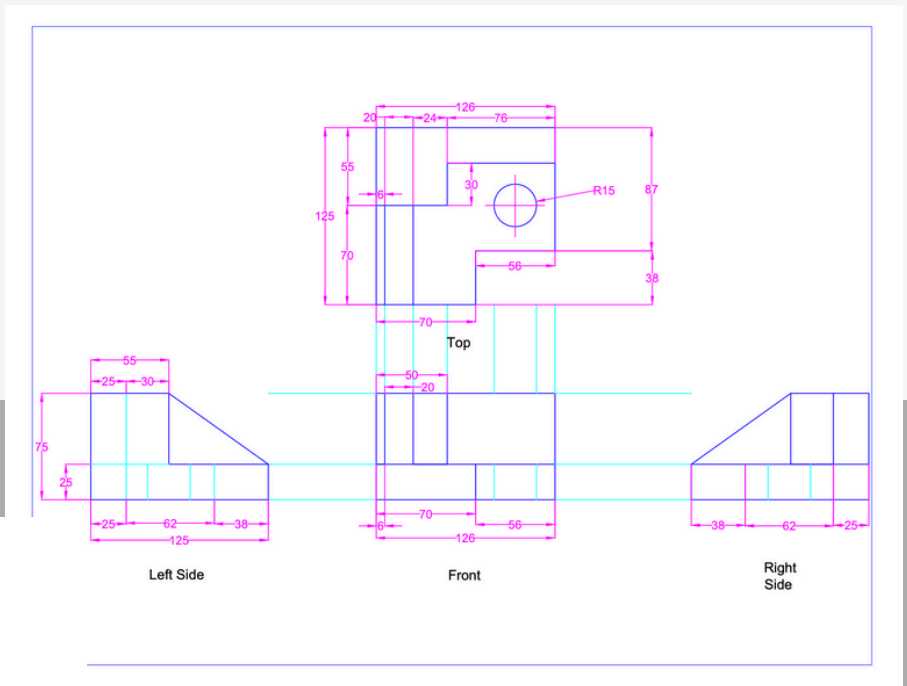
During part two, I was especially challenged through creative block design as I crafted a two - dimensional model of a beautiful landscape. The landscape presented includes various types of trees, automobiles, creative hatching and more, demonstrating the breadth of my abilities in Computer Aided Design.

Specialty Lab I

Spacial Awareness

With over ten laboratory exercises, I have honed my CAD knowledge and experience. During these exercises, four labs stand out as pivotal in my journey, outlined here.

My first special exercise was an examination of spacial awareness and the ability to create from imagination alone. Through keen analyses and controlled imagination, I was able to project and translate 3-dimensional objects to engineering viewports. Although multiple translations were done, I have highlighted my favourite here for your review.

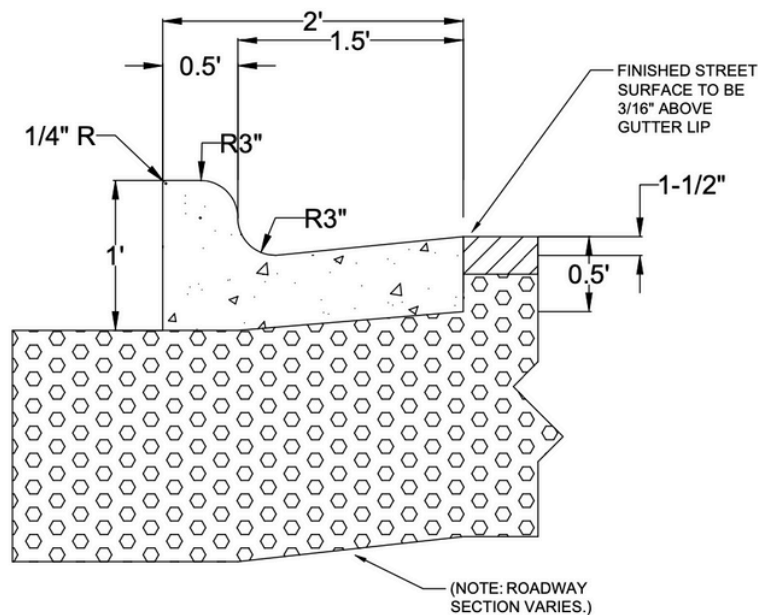


Specialty Lab II

Title Block Design

In this exercise, I was tasked with creating a personalized title block for a standard letter size page commonly used in engineering practice, with half-inch boundaries.

The precision of the drawing, coupled with my personalized title block rendered this laboratory exercise not only important, but one I will always remember.



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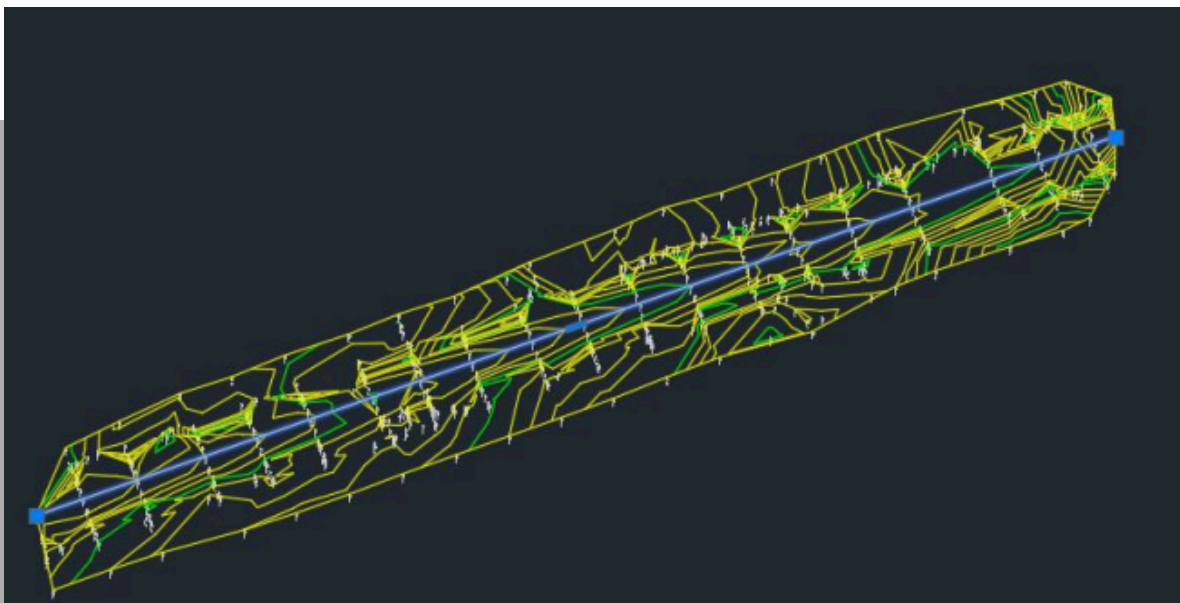
Specialty Lab III

Road Design

My introduction to CIVIL 3D, an AutoDesk software developed to streamline the work of transportation engineers, was rather enjoyable.

In this exercise, I undertook one of the most standard tasks transportation engineers are responsible for, which is the design of a road plan using only topographic survey points provided from the site. I learned how to import points using standard engineering practice, edit imported points through various filtering settings and create a surface, appropriate alignment, and ground profile.

Combining my work, I generated a final plan which allows the advancement of the project.

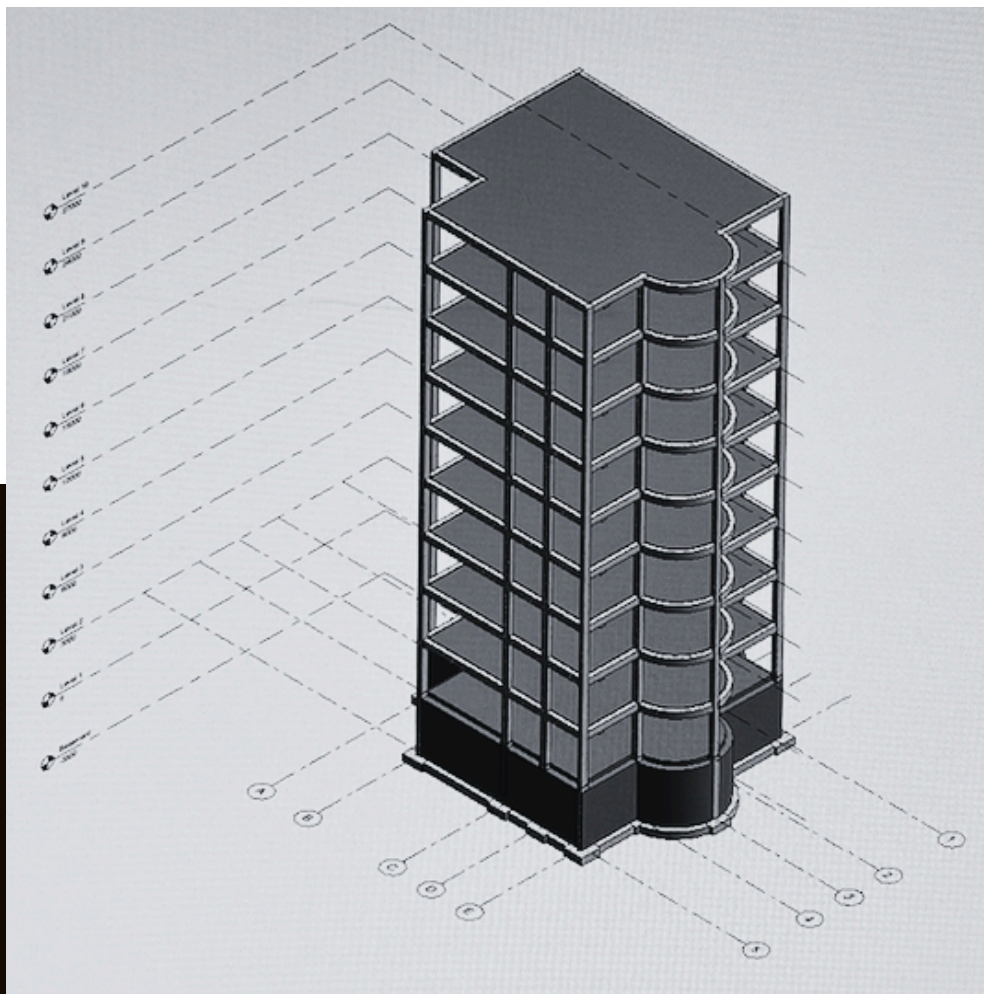


Specialty Lab IV

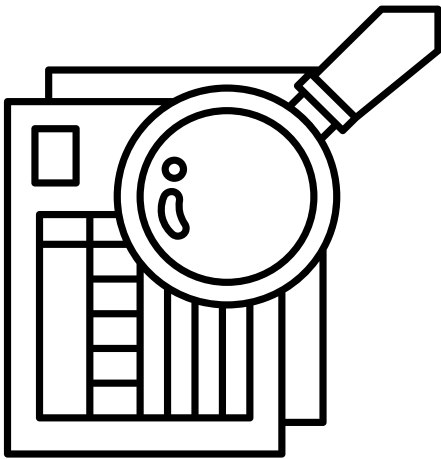
3-D Design

My final laboratory exercise was my favourite of all, as I had the privilege of using REVIT, an AutoDesk software developed to streamline the jobs of structural engineers. Through this exercise, I generated a 3 - dimensional model of a building equipped with concrete members. I was able to design custom sizes for columns, piles, footing, beams, walls, and slabs.

Through advanced CAD mechanics and personal experience, I was able to finalize my building in my first draft, negating the necessity for any real revisions which translates to saved time and resources in real life engineering practice.

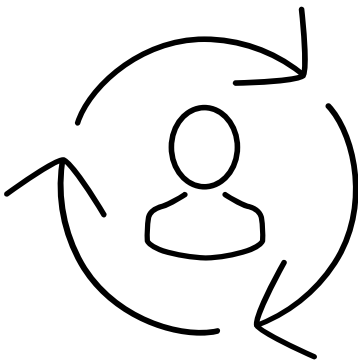


Next Steps



Learn

I have committed myself to continuous learning. I strive to advance the breadth of my experience and knowledge as I advance through each day.



Develop

Considering that learning alone does not contribute effectively to my value to the industry, I have simultaneously committed myself to self development through reflecting on my daily habits and optimizing my output.



Contribute

Through this journey, I aim to contribute to the best of my abilities to my peers and our industry.