I am a dedicated and driven individual, with a bachelor’s degree in Mechanical Engineering and a master's degree in Geographic Information Science from the University of Minnesota, Twin Cities. This educational background has helped me form a rich and solid foundation, blending the precision of engineering with the spatial intelligence of geospatial technologies. Building upon this foundation, I am eager to delve deeper into the field of natural resources management, exploring complex spatial relationships and contributing to the advancement of knowledge in this dynamic and interdisciplinary domain.

My engineering experience has given me a strong foundation in problem-solving, multitasking, and project management. I have worked on several projects, from ensuring gas pipeline integrity through a rigorous maintenance, inspection, and monitoring program to implementing GIS to identify suitable right of way locations for new pipeline installation. Through that, I got the opportunity to collaborate with cross-functional teams to identify and resolve issues at hand. I also gained extensive experience in conducting technical evaluations and inspections of pressure gauges, electrodes, gaskets, and pipes sourced from various vendors, consistently upholding the highest standards of quality and reliability. Through orchestrating comprehensive training sessions on the integration of GIS in pipeline maintenance work, I've not only honed my own skills but have also empowered my team to leverage this powerful tool to its fullest potential. These experiences have honed my ability to work in a group, communicate ideas effectively, and meet deadlines.

During my MGIS program, I developed proficiency in using GIS software, as well as some experience in programming languages such as Python and SQL. I have completed numerous projects, from Stormwater Study Area Prioritization Analysis to Visual Exploration of Spatial-Temporal Dynamics of Air Quality using Volunteered Geographic Information. One of my most notable projects was when I integrated GIS and Multi-Criteria Decision Analysis to identify optimal sites for Combined Cycle Power Plants based on predefined criteria. The project involved data wrangling, analysis, historical map analysis, image georeferencing, and creating a GIS database from various sources that includes USGS. Additionally, I implemented Python scripting to build an ETL, automating geoprocessing tasks for a faster, more efficient, and scalable analysis making it easier to repeat with updated data. Lastly, my research interests are anchored in deterministic suitability analysis, a field where I believe GIS plays an important role in systematically selecting optimal locations for projects based on certain criteria and preferences. This approach, applied in engineering contexts, addresses challenges by considering factors such as environmental considerations, infrastructure planning, and logistical efficiency.

Overall, my diverse background, strong problem-solving skills, proficiency in GIS, and passion for continuous learning position me to make meaningful contributions. I am genuinely excited about the opportunities that lie ahead and eagerly look forward to collaborating with professionals who share a similar passion for leveraging mechanical engineering knowledge and geospatial technologies to drive positive change.