

Joshua F. Kugel

*** * ***** Street, State College, PA 16801
(724) 683-***** | jfk187@psu.edu

Date

Company

Company Address

Dear Company:

I am starting my senior year at The Pennsylvania State University pursuing a Bachelor's Degree in Science for Mechanical and Biomedical Engineering with a focus on biomechanics. As a student, I have laboratory experience through coursework and research lab work. I have worked with industry-made medical devices, such as bioprosthetic valves, which gives me direct hands-on experience with medical equipment. I have learned how to design and alter flow loops for different physiological scenarios, such as healthy versus stenotic vessels, which can be applied to testing and designing *your company products*. I have learned numerous graphic design and programming software, through the classroom and self-teaching methods, and have the capability to learn any new software that is required for me to perform the internship at the high level of which I know I am capable. Beyond the classroom, I am involved in Thon, an organization that raises money for the fight against pediatric cancer.

During the summer before my junior year, I had the opportunity to work for the Borough of Beaver, located in Beaver, PA, interning with their Borough Engineer. In addition to working alongside the Borough Engineer, I also worked and collaborated with the Municipal Authority and the Highway Department, completing various projects where I gained valuable experience with project management and working as part of a cross functional team. The main project that I worked on was to examine and assess the sanitary, storm, and water systems that are operated by the borough. This included collecting and analyzing field data that I then used to construct data sheets of each manhole and catch basin located throughout the borough. I constructed and modernized the system maps using AutoCAD, providing the borough with digital maps that they can update and plot at any time. I provided recommendations on future improvements to restore the sanitary and storm system based on various damages to the pipes, manholes, or catch basins, the scour velocity to determine the need for flushing, as well as water infiltration and air ventilation in the sanitary system. Working with the borough engineer's engineering firm, I designed and explored options of rerouting the sanitary system to divert flow from going to the lift station and direct it towards the gravity fed system to save energy and money. Finally, I confirmed regulations of the systems with DEP standards to ensure the borough has a safe system for both the residents and the environment.

I hope you agree that my abilities are an excellent match for an internship with *your company*. I have enclosed my resume for you to further review. I look forward to speaking with you soon regarding the future of my career path with *your company*. Thank you for your consideration and the time you took to meet with me.

You may contact me at (724) 683-***** or by email at jfk187@psu.edu.

Best Regards,

Joshua Kugel