

## **OBJECTIVE**

To obtain a challenging position at a reputable company where I can use my engineering talents and my computer programming skills to benefit the company and contribute to its success.

## **EDUCATION**

The University of Pittsburgh  
Swanson School of Engineering  
Chemical Engineering Major / Mathematics Minor  
Fall 2013 – Present  
Anticipated Graduation: Dec. 2017  
Current GPA: 3.817 (on a 4.0 scale)  
GRE Scores: Quantitative: 170/170  
Verbal: 155/170



## **HONORS**

- Bayer USA Foundation Special Scholarship recipient
- Swanson School of Engineering Dean's List
- National Society of Collegiate Scholars
- Delta Epsilon Iota Academic Honor Society
- Phi Eta Sigma National Honor Society

## **COMPUTER SKILLS**

- Highly proficient with front-end web development including JavaScript and other front-end technologies such as bootstrap.js, AJAX, jQuery, and graphing libraries like highcharts.js and c3.js
- Experience with iterative models for calculating thermodynamic properties and kinetic properties of polymer reactions
- Experience with Github and version control software as well as SQL, UNIX, Java, Python, and Visual Basic for Applications
- Some back-end web development experience including node.js and REST APIs

## **WORK EXPERIENCE**

### ***Research Assistant at the University of Pittsburgh, (January 2017 – Present)***

- Used RASPA, a computational chemistry software package, to model adsorption in Metal Organic Frameworks and compare computational results to experimentally determined values
- Developed and assisted in development of Python files that enabled quick manipulation of a large number of simulation files
- Investigated trends in data as well as patterns in the results of several simulations of interest. Worked to identify possible errors in simulation results
- Determined the degree to which several input variables affected simulation operation and results

***Co-operative Education Intern – Covestro LLC (formerly Bayer MaterialScience LLC), Pittsburgh, Pennsylvania (August 2015 - December 2015; May 2016 – August 2016)***

- Created multiple web applications using AJAX and JavaScript. Employed various data analysis techniques to include features such as sorting, filtering, and grouping data based on user preference.
- Updated Reactor Model and Benchmarking/Best Demonstrated Step Time Calculator applications by debugging errors and rewriting code to improve program efficiency. Updated corresponding user documentation.
- Studied work-up vessel data trends and performed a detailed cost analysis comparison on different systems for polyether creation

***Co-operative Education Intern – Bayer MaterialScience LLC, Pittsburgh, Pennsylvania (January 2015 - May 2015)***

- Developed a Visual Basic application to query plant data and perform a chemical product recipe efficiency analysis
- Created process and instrumentation diagrams in PI ProcessBook, replicating Aspen diagrams that were unavailable outside working hours
- Studied plant reactor data trends and recommended Distributed Control System (DCS) programming corrections to improve process efficiency
- Analyzed global vacuum distillation systems, compiling data and conducting efficiency comparisons between Bayer's chemical plants

***Intern - Wastewater Collection System, South Fayette Township Municipal Authority, Bridgeville, Pennsylvania (May 2014 - August 2014)***

- Maintained sewage pipeline information on township-wide Geoplan server
- Repaired sewage lines and replaced piping
- Managed monthly distribution of township sewage bills
- General sewage plant maintenance and inspection of facilities

***Cashier/Stock Associate, Bottom Dollar Foods, Bridgeville, Pennsylvania (May 2013-August 2013), and K-Mart, Bridgeville, Pennsylvania (April 2012 - August 2012)***

- Replenished store inventory with new product and returns, ensuring proper product placement on store shelves
- Interfaced with customers by operating store cash registers

***Summer Program Volunteer, South Fayette Public Library (Summers of 2011 & 2012)***

- Planned and managed summer reading programs for children ages five through ten
- Shelved books and organized the card catalog

***ACTIVITIES / HOBBIES***

- National Society of Leadership and Success
- University of Pittsburgh Intramural Volleyball League
- Independent web development and involvement in Codepen Pittsburgh
- Traveling, attending concerts, scuba diving and playing guitar