

# Ethan M. Schwartz

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| 8398 Seemsville Road Northampton, PA 18067 | Cell: 610-428-9424 | Email: ethan.schwartz@wilkes.edu |  
www.linkedin.com/in/ethanschwartz-Wilkes2020

## **Objective:**

To apply my experience in mechanical engineering and heavy industrial operation, while contributing to the overall success of the company.

## **Education:**

### **Wilkes University, Wilkes-Barre, PA**

Bachelor of Science in Mechanical Engineering (ABET), Honors Program  
Minor: Engineering Management

**Cumulative GPA: 3.71/4.00**  
Anticipated Graduation: May 2020

## **Related Experience:**

### **PPL Electric Utilities – T&S System Engineering Intern**

**May 2019 – August 2019**

- Participated in an integral role to maintain the safety and reliability of the transmission grid system within PPL Electric Utility territory. Focused on a UAV project to perform infrared substation inspections while also assisting in repairs of equipment malfunctions.

### **PennDOT ESTI STAMPP Program, Civil Engineer Assistant**

**May 2018 – August 2018**

- Performed Roadway Condition Surveys for shoulder, guide rail, and drainage ditches. Operated in a heavy industrial environment. Entrusted with a state vehicle & state laptop to perform daily survey tasks, including process improvement. Performed 3 days of training at the Allentown District office. Received state certified training in Harrisburg, PA, achieving a proficiency level for internship approval.

### **Allan P. Kirby Center for Free Enterprise and Entrepreneurship, Engineering Scholar**

**April 2018 – Present**

- Mentoring internal & external clients using engineering processes. Assist in product design & development which then translates to producing CAD drawings & 3D printed models. Provide cost analysis & manufacturing research upon the client's approval of model. Bounded by confidentiality agreement, therefore project specifics cannot be discussed.

### **Department of Electrical Engineering and Physics - Teaching Assistant and Tutor**

**January 2018 – May 2018**

- Aid professors & laboratory instructors in respective pharmacy physics & general physics sections as well as providing necessary tutoring to fellow students.

### **Township of Bethlehem, PA Public Works - Seasonal Help**

**June 2016 – August 2017**

- Performed lawn maintenance & general manual labor. Operated heavy equipment owned by township, while maintaining safety practices. Approved to drive municipal vehicles.

## **Educational Projects and Skills:**

- Machine Design: Mow and Grow Project – using SolidWorks & Microsoft Office, a student team of five have designed and are continuing to improve upon the model of a push mower with a fertilizing attachment.
- Manufacturing and Machining: Turbine Blade and SR-71 Blackbird Skin Research – through the Wilkes University Farley Library scholarly sources database, three student colleagues and I are continuously researching & presenting the complexity and engineering marvel known as the SR-71 Blackbird.
- Mechatronics: Jeep Recovery (Position Control Project) - Designed, coded, & constructed a ramp to model a tow truck and winch system from a basic breadboard.
- Dynamics: Roller Coaster Design and Model - Designed the Roller Coaster in SolidWorks, performed experimental calculations in Microsoft Excel, and created a simulation in No Limits 2.
- Strength of Materials: Materials Optimization Design Project – competed in a competition attempting to limit to the efficiency of a hollow round stock using a hollowed stock with a torque head extruded cut, modeled in Autodesk Inventor and Microsoft Excel for differential calculations.
- CAD Lab: All-Terrain Vehicle Tandem Axle Dump Trailer – Assembled 3D model in SolidWorks with over a dozen parts

## **Campus Activities and Leadership Experience:**

### **American Society of Mechanical Engineers – Vice President**

**August 2018 – Present**

- Annual Car Show nearly 300 registered vehicles – Donated \$1,000 to Patriot's Cove (Non-Profit Veteran's Organization)

### **ESAC (Engineering Student Activities Committee) – Treasurer**

**September 2019 – Present**

### **Pennsylvania Society of Professional Engineers (PSPE) – Active Member**

**September 2018 – Present**

### **The Big Event – Participant**

**April 2016 (Annually)**

