**Theodore Ward**

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**EDUCATION**

**Northwestern University Evanston, IL**

**Major:** Bachelor of Science in Mechanical Engineering Graduated: June 2018

**Relevant Coursework:** Mechanics, Design Engineering, Manufacturing, Product Design, Design for Manufacturing

**RELEVANT EXPERIENCE**

**UL LLC** May 2019 - Present

***Project Manager***

* Lead Short Term Process Improvement Initiatives
  + Lean/Six Sigma Yellow Belt Certified.
  + Automation of existing workflows.
* Manage Mid ($15,000) to Large ($30,000+) projects from scope to completion.
  + Lead Project team consisting of Field Engineers, Test Technicians, and other Project Mangers

***Associate Project Manager***

* Manages low ($5,000) to mid ($15,000) projects from scope to completion.
  + Establishes project timelines and requirements.
  + Manages inspections of client facilities and selection of samples for testing on a timely basis.
  + Leads Field Engineers and Testing Technicians through project timelines
* Reviews project requests for testing and revisions.
  + Makes decisions on if testing is required to make desired changes.
  + Creates test plans and manages work on the projects.

**Observational Astronomy Research Group** January 2018 – October 2018

***Mechanical Design Engineer***

* Designed an optics-based measurement system for NASA funded research group measuring nanometer angle changes in a surface profile resulting from induced magnetic fields.
  + Modeled the sample mount and analyzed for center of mass and bending using Siemens NX to minimize off axis bends and maximize measurement precision.
  + Created tooling operations for CNC machining.
* Controlled the measurement system via a custom Python script to scan the sample surface.
  + Developed a program to scan a 25mm by 25mm square of the sample and convert intensity measurements into a 2D gaussian profile to demonstrate controlled changes over extended periods of time.

**NXR Lab at Northwestern University** June 2017 – October 2017

***Mechanical Design Engineer***

* Designed a new device for taking surface texture data (tribometry and vibrometry) at the same time
  + Designed and modeled using 3D CAD (Onshape) for 10 micrometer tolerances on a manual mill
  + Wrote Mathematica code to ensure proper resonance and MATLAB code for data acquisition process
* Designed to incorporate Electrostatic Haptic Displays for increased range of data acquisition
* Designed and modeled a fully adjustable method to secure the arm and finger in position during data acquisition
  + Comprehensive research of existing methods and patent space

**LEADERSHIP**

**Eagle Scout** Winter 2003 – Spring 2014

* Served several years in leadership positions, including a 6-month term as Senior Patrol Leader leading entire troop, planning activities for meetings and teaching skills.

**Northwestern Triathlon Club Team | President** May 2017 – June 2018

**ADDITIONAL INFORMATION**

**Machining/Prototyping Skills:** Siemens NX, SolidWorks, CNC Programing, Milling, Injection Molding

**Software Proficient:** MATLAB, Mathematica, Python

**Interests:** Endurance Sports (Marathon, IRONMAN, Triathlon, Cycling), Ukulele, Painting