# ANDREW HAMROFF

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- EDUCATION -

University of Maryland, College Park – Honors College, Presidents Scholarship

**Expected May 2019** 

A. James Clark School of Engineering

GPA: 3.78

B.S. Mechanical Engineering

# University of Maryland, QUEST Honors Program

Aug. 2016 - Present

• A multidisciplinary, hands-on program that focuses on quality management, process improvement, and systems design through semester long projects in cross-functional teams.

#### WORK EXPERIENCE

### Stanley Black and Decker

June 2018 - Aug. 2018

Mechanical Engineering Intern, Portable Woodworking

Towson, MD

- Mitigated vibration for the DeWALT Cordless Random Orbital Sander by analyzing components that contribute to vibration and resizing the counterweight system.
- Provided CAD designs and prototypes utilizing user input for a locking mechanism on an upcoming product.
- Performed compliance review and other testing for marketing claims on various woodworking tools.

# Middle River Aircraft Systems (MRAS)

Jan. 2018 - May 2018

Process Consultant

Middle River, MD

- Helped minimize manufacturing bottlenecks in order to allow MRAS to meet an increased production schedule for their Airbus A320 program.
- Used Six Sigma Methodologies to analyze MRAS' current processes, enable communication, increase traceability of inventory, and optimize the layout of the assembly floor to integrate lean principles.

EN Engineering May 2017 - Aug. 2017

Project Engineer Intern, Gas Distribution

Glen Burnie. MD

- Assisted project engineers in day to day tasks with natural gas pipeline and facility design for Baltimore Gas and Electric and Washington Gas Light Company.
- Designed, processed and performed engineering feasibility review for gas conversions and abandonments.
- Increased productivity by 11% by creating abandonment info sheets and worked on data entry and permitting for pipeline jobs.

— TECHNICAL PROJECTS—

Terps Racing

Jan. 2017 - Present College Park, MD

Mechanical Design Suspension Sub-Team Leader

college Fair, MD

- Re-designed and optimized the rear trailing arms using SolidWorks design and analysis and Design For Manufacturing techniques to save weight and increase the reliability of the car.
- Decreased the weight of the rear trailing arm by 23.8%.
- Lead and manage a team of 7 members to re-design and optimize all the suspension linkages.

TurBinD April 2016 - Present

Lead Mechanical Engineer

College Park, MD

- Built a vertical axis wind turbine as a team to generate electricity and act as an outdoor charging station
- Designed and rendered the vertical axis wind turbine blades using SolidWorks.
- Selected as a Do Good Challenge Semi-Finalist out of eighty-seven teams; received \$1500 total in funding.

LEADERSHIP -

# **Design For America, University of Maryland Studio**

July 2016-Aug. 2017

Executive Director

College Park, MD

- Founded and led the University of Maryland Design for America studio.
- Use a human centered design process to innovate products and services for social good in the community

- SKILLS

**Software:** SolidWorks, CATIA, PTC Creo, Autodesk Inventor, Meshmixer, Word, Excel, PowerPoint, Assetsuite8, Smallworld/Atlas GIS, MATLAB (Exposure)

**New Product Development:** House of Quality, DMAIC/DMEDI, Multi-attribute Utility Analysis, Fishbone/Ishikawa Diagram, Why Ladder Diagram, Garvin's 8 Dimensions of Quality

# Certified SolidWorks Associate (CSWA)

Jan. 2015

Passed CSWA exam proving competency in 3D modeling and application of engineering principles.