

ANDREW HAMROFF

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Professional Experience

SharkNinja

Sept. 2024 - Present

Senior Mechanical Engineer, Motorized & Frozen Treats

Boston, MA

- Lead engineer on an unreleased next-generation Ninja appliance, driving technical development of physical user touchpoints and owning root cause analysis of failures through multiple rapid design iterations
- Define electro-mechanical system architecture, integrating 4+ sensors and actuators with embedded software enabling novel product outputs and capabilities previously impossible in the system
- Coordinate cross functional alignment across industrial design, product, and brand teams to translate consumer insights into concrete hardware specifications and implement them at all project phases
- Synthesize complex technical risk, program status, and actionable next steps into executive-level slides presented to the CEO and senior leadership team
- Mentor 2 junior engineers and co-ops through technical workstreams and continuous improvement

Stanley Black & Decker

Jun. 2019 - May 2024

Senior Mechanical Engineer, Drilling and Fastening Team | May 2022 – May 2024

Towson, MD

- Designed precision mechanisms for the DeWALT DCD803B cordless drill and other drilling and fastening products, applying DFM, DFA and cost-optimization principles from concept to manufacturing
- Created and reviewed complex engineering drawings that adhere to GD&T standards per ASME Y14.5
- Coordinated with domestic and international suppliers to prepare comprehensive quote packages for high-volume parts with manufacturing quantities of 100,000+ per year
- Managed and tracked a full bill of materials from prototype stages to manufacturing

Mechanical Engineer, Expansion Team | July 2019 – April 2022

Towson, MD

- Developed innovative dust extractor product and sub-system concepts and awarded one patent for my designs (3 total patents across SharkNinja and Stanley Black & Decker projects)
- Re-engineered the filter cleaning system to achieve 90% cleaning efficiency through FEA driven design iterations in CATIA and validated performance through structured test procedures
- Translated design concepts into tangible objects via 3D Printing and rapid prototyping methods
- Executed and documented comprehensive test procedures to verify products met reliability standards
- Conducted jobsite visits to capture end-user insights ensuring product and feature viability

Stanley Leadership Program | July 2019 – July 2021

Towson, MD

- Led the development and implementation of a lean project that improved IT Help Desk efficiency by 80%

Middle River Aircraft Systems (MRAS)

Jan. 2018 - May 2018

Process Consultant

Middle River, MD

- Helped minimize manufacturing bottlenecks to increase shipset throughput by 50% and allow MRAS to meet an increased production schedule for their Airbus A320 program
- Applied Six Sigma Methodologies and Lean Principles to analyze MRAS' processes, improve inventory traceability, optimize the layout of the assembly floor, and foster communication

Technical Projects

Terps Racing

Jan. 2017 – May 2019

Mechanical Design Suspension Sub-Team Leader

College Park, MD

- Designed and optimized rear trailing arms using SolidWorks design, engineering analysis, and Design for Manufacturing techniques to reduce weight by 23.8% and increase the reliability of the Baja SAE vehicle

TurBinD

Apr. 2016 – May 2019

Lead Mechanical Engineer

College Park, MD

- Designed and built a vertical axis wind turbine to generate electricity and act as an outdoor charging station

SKILLS

Software: CATIA, SolidWorks, Inventor, PTC Creo, Windchill PLM, Python (pandas), Microsoft Office Suite

New Product Development: Finite Element Analysis (FEA), DFM/DFA/DFx (Injection Molding, Machining, Stamping, Casting, Forging), Tolerance Stack-Up Analysis, GD&T (ASME Y14.5), 3D Printing (FDM, SLA, SLS, PolyJet), Rapid Prototyping Tools, Design Failure Mode & Effect Analysis (DFMEA), Engineering Testing, Lean Six Sigma, Kaizen Methodologies

Certified SolidWorks Associate (CSWA)

Jan. 2015

EDUCATION

University of Maryland, College Park – Honors College, President's Scholarship

May 2019

B.S. Mechanical Engineering, GPA: 3.80

A. James Clark School of Engineering

University of Maryland, QUEST Honors Program

Aug. 2016 – May 2019