

Profile

Experienced mechanical engineer with 8 years in footwear innovation. Proven record of delivering novel technical solutions, informing product design with meaningful metrics, and working with cross-functional teams to transition innovative concepts into market ready products.

Expertise

- **Bringing Innovations to Market:**
Launched 6 products. Delivered 2M pairs and \$160M revenue.
- **Utilization of External Partners:**
Manage 8 vendors, leveraging \$700K of OPEX and CAPEX.
- **Team Leadership and Culture Building:** Led series of 5 workshops strengthening communication and feedback skills.
- **Machine Design:** 7 novel machines designed and built for adidas.
- **Data Analysis:** *Python, Excel, JMP*
- **3D and 2D CAD:** *Rhino, Grasshopper, SolidWorks, Illustrator*
- **FEA:** *ABAQUS, FEMAP*
- **Microelectronics:** *Arduino*

Education

Oregon State University

MS Mech Eng – Material Mechanics - 2017

Honors BS Mechanical Engineering - 2015

Creative Projects

Electromechanical Sculptures

Best in Show, Alberta St. Gallery (2021)

Experience

adidas Innovation

Manager Engineering | *JUNE 2021 – PRESENT*

RESPONSIBILITIES

- Bring creative solutions to athlete problems, utilizing innovative materials and designs across running, basketball, action, and cleated sports.
- Collaborate with factory partners, athlete scientists, and designers, using tech packs, technical reports, and drawings to clearly communicate ideas.
- Lead resource allocation and focus for 3 peer engineers across 7 projects within an advanced cushioning development group.
- Design engineering trials and analyze data to quantify key metrics of performance, fit, cost, and manufacturability.

HIGHLIGHTS

- Generated patentable concepts with inventorship on 4 granted patents, 3 patents in filing, and 14 submissions of internal patent proposals.

Assistant Manager Engineering | *JUNE 2017 – JUNE 2021*

RESPONSIBILITIES

- Developed prototype materials and methods of make into production-ready solutions.
- Mechanical Test Lab Manager, coordinating use, purchases, and repairs.

HIGHLIGHTS

- SS17 FUTURECRAFT 4D, FW18 ALPHAEDGE 4D, SS21 4DFWD, SS21 4DFWD PULSE, SS22 4D CUSH: Supported commercialization of adidas 4D, the world's highest-selling 3D printed shoes. Addressed key challenges in durability, performance, and manufacturability, including a 4-month onsite DOE at Carbon3D.
- FW22 FUTURECRAFT STRUNG: Process design, product prototyping, and material standards development with inventorship on 2 patents.

OSU x adidas Sponsored Master's Thesis | *2015 – 2017*

- Developed a prediction model for elastomer traction on smooth surfaces.

Allied Systems Co-op | *APRIL-SEPTEMBER 2014*

- Designed an improved bale scale for Freeman hay balers, addressing in-field user feedback.

Precision Castparts Co-op | *APRIL-SEPTEMBER 2013*

- Identified and eliminated sources of manufacturing defects on a world-record-sized titanium investment casting for Rolls Royce aircraft engines.

Nike Golf Internship | *JUNE-SEPTEMBER 2010*

- Executed a DOE on the aerodynamic effects of sprayed golf ball coatings and constructed an instrumented test range to measure ball flight metrics.