

LUCAS HARTMAN

lucashartman@gmail.com
914-924-3106

PORTFOLIO

www.LucasHartman.com

EDUCATION

M.S.E. in Mechanical Engineering
University of Pennsylvania, 2012

B.S.E. in Mechanical Engineering
University of Pennsylvania, 2011

TECH SKILLS

Microsoft Office Suite
Adobe Creative Suite
Matlab / SolidWorks

Additive manufacturing (3D-printing)
Carbon composites fabrication
Laser-cutting / Thermoforming
CNC & Manual machining
Electronics / Soldering
Garment construction

ACHIEVEMENTS

Bicycled 3100 miles across USA,
raising \$50k for Livestrong

The Best Bike Accessories of 2016
Outside Magazine, 2016

Gear of the Year
BikeRadar, 2015

Best Bike Saddle
Outdoor Gear Lab, 2013

William K. Gemill Memorial Award
University of Pennsylvania, 2011

Victor W. K. Ku Memorial Award
University of Pennsylvania, 2010

PROFESSIONAL EXPERIENCE

Apparel Innovation Engineering Lead

Nike (*June 2016 – Present*)

Delivered apparel innovations at scale in partnership with NXT, Sourcing, Product Integrity, global factories, and key technology partners. Responsibilities include defining opportunities, identifying risks, and confirming scale plans to make early recommendations on product construction techniques and tooling solutions.

Worked with Field Engineering and Product Integrity teams to support development through pilot production, resolve potential manufacturing and efficiency concerns, and facilitate process standardization for new products transitioning into bulk production.

Explored new methods of make by staying up to date on the latest techniques, investigating cutting edge machinery, and benchmarking transferable technologies from other fields.

Engineer: Saddles, Grips, and Handlebar Tape

Specialized Bicycle Components (*Jan 2013 – June 2016*)

Drove all engineering stages in the development of industry-leading bicycle equipment; spanning concept generation, prototyping, CAD modelling, structural optimization, lab testing, and field validation to surpass strength, performance, and ergonomic requirements.

Managed relationships with overseas partners, including daily communications to push development, supervise timelines, oversee tooling creation and modifications, negotiate costs, and verify that products surpass physical and cosmetic requirements.

Led innovation and new concept generation through frequent interactions with athletes/retailers worldwide, fabrication of functional prototypes for biomechanical evaluation, and ongoing research for new materials, manufacturing methods, and sustainable processes.

Hand-crafted custom equipment for elite cyclists competing at the highest level, including Tour de France victors, Olympic competitors, and UCI World Champions.

Mechanical Engineer

Lightning Packs (*June 2012 – Dec 2012*)

Designed mechanical subsystems of electricity-generating ergonomic backpacks intended for military use and the consumer market.

Satisfied internally-defined engineering requirements far beyond the US military's specifications to ensure product durability and robust system performance across all use scenarios.

Created experimental setups and led all force, acceleration, efficiency, and biomechanics measurements taken throughout development.

Manager of Additive Manufacturing, Head Teaching Assistant

University of Pennsylvania (*May 2009 – May 2012*)

Improved efficiency of additive manufacturing operations by implementing streamlined workflow to handle growing user population and increased demand for 3D-printed parts.

Advised research labs and students in designing parts for successful 3D-printing. Taught mechanical design fundamentals, CAD, CAM, and advanced CNC machining techniques to 300+ students over the course of six semesters.

Mechanical Engineering Intern

IDEO (*May 2011 – Aug 2011*)

Collaborated on several projects utilizing IDEO's human-centered approach for brainstorming, iterative prototyping, engineering, concept realization, testing, and documentation.

Facilitated interactions between IDEO, clients, international hardware partners, and contract manufacturers to streamline development of a high-volume consumer electronics product.