Zachary Hahn

ZacharyHahn.com | zwhahn@gmail.com | 215-821-4355 | https://www.linkedin.com/in/Zachary-Hahn/

EDUCATION

University of Pennsylvania, School of Engineering and Applied Sciences, *Philadelphia, PA*

Master of Science in Engineering in **Robotics** May 2022

Bachelor of Science in Engineering in **Mechanical Engineering**, May 2021

PROFESSIONAL EXPERIENCE

Cooper Perkins (Part of PA Consulting) September 2022-Present

Mechanical Engineer San Francisco, CA

- Design and prototype electromechanical products for clients across multiple sectors (medical devices, consumer electronics, food industry, fitness)
- Engage in full product development life cycle, from research to concept development to detailed design
- Redesigned intraocular lens insertion nozzle to reduce manufacturing costs and improve DFM and DFA
- Spearheaded development of a Python system to transfer project management data from legacy software using data acquisition APIs

NASA Jet Propulsion Laboratory June-November 2021

Robotics Co-op Pasadena, CA

- Investigated Sample Transfer Systems (STS) for Mars Rover and presented viability assessment to chief engineers
- Designed flexible solid models of the various STS configurations using SolidWorks and NX, enabling simple system manipulation for future investigations
- Performed tolerance stack-up analysis and peer-reviewed engineering drawings

Temple Allen Industries May-August 2020

Electromechanical Engineering Intern Rockville, MD

- Programmed a graphical user interface (GUI) in Python to modernize and advance company product
- Redesigned mechanical fatigue test using pneumatic circuitry, increased test speed 2x and test run time 3.6x

Castor May-July 2019

Mechanical Engineering Intern Tel Aviv, Israel

- Performed R&D for a small startup creating an industrial 3D printing decision support software
- Conducted failure analysis and redesign of mechanical components using FEA and SolidWorks

RESEARCH AND LEADERSHIP

University of Pennsylvania, Graduate Teaching Assistant January 2021-May 2022

- Led labs, managed student projects, and created course material for Integrated Computer-Aided Design course

GRASP Laboratory, Research Assistant November 2020-April 2021

- Researched and designed waterproof housing for Modboat, a very low-cost aquatic robot with a single motor

SKILLS

Mechanical: SolidWorks, PDM, Master Modelling, GD&T, Finite Element Analysis, Design for Manufacturability, ANSYS

Manufacturing: Computer-Aided Manufacturing, CNC & Manual Machining, 3D-Printing, Laser Cutting, Injection Molding

Software: Python, Arduino, ROS2, MATLAB, Simulink, HTML, CSS

Electrical: Microcontrollers (ESP32, Teensy, BeagleBone), Raspberry Pi, Circuit Design

INTERESTS AND HOBBIES

Industrial Corn, Running, Chess, Cooking and Baking, Philadelphia 76ers