



Thomas Collins

111 Willard Ave, Portsmouth NH 03801 • (603) 828 - 9643 • twc1001@wildcats.unh.edu

Objective: Find an internship or full-time aerospace engineering position. Emphasis on Propulsion and Mechanical Engineering.

Education: **University of New Hampshire – College of Engineering and Physical Sciences** Jan. 2017 – May 2020, anticipated
GPA: **3.24/4.0** | B.S, Engineering Physics | Minor in Mechanical Engineering
University of Maine, Orono – College of Engineering August 2015 – December 2016
B.S, Engineering Physics

Tech Skills: Solidworks | MATLAB | Visual Basics for Applications | Mastercam | LabView | 5 Axis Machining | GitHub

Extracurricular Experience:

UNH Students for the Exploration and Development of Space August 2017 – present
Vice President, Frame Lead

- Board member, in charge of the Member Body and leading Frame Team.
- Led mechanical fabrication of a rocket frame through design engineering and drafting with successful integration of each program's components. Critical to our Hybrid Rocket with a propulsion unit capable of 300lbs of thrust.
- Strong experience with propulsion system design principles through iterative testing of our hybrid engine.
- In depth knowledge of propulsion system components and their respective interfaces through extracurricular research of general rocketry and specifically hybrid rocket propulsion.
- Architectural design of the rocket frame generated through computer aided engineering solutions and analysis of mechanical design through finite element analysis.

Society of Physics Students Member January 2017 – August 2018

- Academic Society devoted to creating a community for the Physics and Engineering Physics students on campus.
- Assist undergraduates in General Physics 1-2 and Calculus 1-2

Professional Experience:

TURBOCAM, International May 2019 – present
Engineering Intern

- Operation of electrochemical machines and 5-axis mills, with programming of 5-axis mills through Mastercam
- Root cause analysis leading to implementation of corrective measures.
- Strict attention to detail and willingness to thrive in a fast-paced engineering environment.
- Developed data analysis software for data management and control. Data considerations consisted of material analysis, characterization, and testing.
- Demonstration of a highly motivated mindset and drive to projects, assigned and self-directed.

Nuclear and Particle Physics Group – University of New Hampshire August 2018 – August 2019
Undergraduate Research Assistant

- Maintained hardware standards, testing standards, and designed safe processes for radioactive material.
- Assisted professors in development and implementation of experiments

UNH Engineering Physics and Mechanical Engineering January 2018 – present
Undergraduate Researcher

- Study of Engineering Physics Major curriculum, including Classical mechanics, quantum physics, and optics.
 - Study of Mechanical Engineering Minor curriculum, including thermal systems, control systems, and fluid dynamics.
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Extracurricular Activities:

Brother of Alpha Kappa Psi January 2017 – January 2019

- Business Professional Fraternity. Devoted to shaping people in professional ways to enhance modern business.
- Judiciary Board Member.

UNH Archery Member Fall 2017 – present

- Athletic club including weekly practice and yearly competitions.