Thomas Collins

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

Objective: Find an internship or full-time engineering position within the Aerospace and spaceflight industry.

Education:

University of New Hampshire – *College of Engineering and Physical Sciences* **Jan. 2017 – May 2020, anticipated**
GPA: **3.21/4.0** | 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 | CNC Machining | GitHub

Professional Experience:

TURBOCAM, International **May 2019 – present**
Manufacturing 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.
- Developed data analysis software for data management and control, expanded program's capability by 30%. Data considerations consisted of material analysis, characterization, and testing.
- Strict attention to detail and willingness to thrive in a fast-paced engineering environment.
- 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. Critical to achieving a spin polarization of 14%.
- Assisted professors in development and implementation of experiments.

Future Professional Experience:

Rocket Lab USA **June 2020 – Sept 2020**
Manufacturing Engineering Intern

- Matthew Isakowitz Fellowship Program class of 2020.

Extracurricular Experience:

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

- Board member, in charge of the Member Body consisting of 45 members and leading Frame Team consisting of 15 members including 3 senior capstones.
- 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 200lbs of thrust.
- Developed 2D/3D CAD models of our rocket's structural components. Designs reinforced with FEA and considerations to machining constraints and the physics behind the design.
- Strong experience with propulsion system design principles though 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.
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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

Extracurricular Activities:

UNH Archery Member **August 2017 – August 2019**

- Athletic club including weekly practice and yearly competitions.