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## Christian M. Schrader

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**OBJECTIVE:** 

Seeking an aerospace engineering intern position for the summer of 2020.

**SKILLS:** 

**CAD:** SolidWorks, Engineering Drawings

**Programing:** Python, C/C++, MATLAB, Java, JavaScript, HTML, CSS **Microsoft Office:** Word, Excel, PowerPoint, Outlook, SharePoint **Rapid Prototyping:** FDM 3D Printing, PCB Milling, CNC Milling

Technical Writing: NASA Student Launch Team, Great Problems Seminar

**EDUCATION:** 

**Worcester Polytechnic Institute (WPI)**, Worcester, MA; Bachelor of Science in Aerospace Engineering; Minor in Computer Science; Expected Dec 2021, 3.7 GPA; Courses in Aerodynamics, Spacecraft Dynamics and Control, Engineering Experimentation, Aerospace Controls, Aerospace Structures, Linear Algebra, Differential Equations, Astronautics, Object Oriented and Systems Programing, Algorithms, and Thermodynamics.

**Experience:** 

**Aeromechanics Intern: NASA Ames Research Center:** Jun-Aug 2019, Mountainview, CA; Worked in the Aeromechanics Division as a group lead for a team of 3 other interns to develop a proof of concept robot for a drone to aid in wild fire fighting. Developed system concept. Created Concept of Operations and Requirement Matrix. Programed the robot in C++ to navigate by coordinates and pursue heat sources. Utilized state machines for decision making and an object-oriented paradigm to ensure an easily maintainable code-base.

Aerospace Engineering Intern, Busek Co. Inc.: May-Aug 2018, Natick, MA; Worked with vendors and engineers to improve part drawings, models, and assemblies in SolidWorks, completing project one month ahead of schedule. Collaborated with another intern to design and fabricate a PCB mill vacuum chuck and an electrical current meter with analysis software. Wrote procedures for PCB prototyping which, combined with the vacuum chuck, significantly accelerated the company's PCB prototyping workflow.

**PROJECTS:** 

**Captain, NASA Student Launch:** Jun 2019-Present, WPI; Leading a team of 9 Officers and 44 General Members to compete in NASA Student Launch. The team is designing, building, and launching a rocket to fly to over 4000ft before deploying a UAV sample return payload after landing. Responsible for project planning, team coordination, managing the writing of design review reports, and decision making. Co-founded the team in Aug 2018 and served as Safety Officer Aug 2018-Jun 2019.

**Interactive Qualifying Project (IQP):** Aug 2019-Present, WPI; Working on an interdisciplinary team of 4 in Panama with Fundesteam, a non-profit organization improving STEM education. The team is aiding Fundesteam in obtaining more sustainable funding by redesigning their Python based website, creating a grant application plan, and creating visuals to better present data to potential donors.

## **Achievements:**

Eagle Scout, Senior Patrol Leader, Boy Scouts
Sigma Gamma Tau Aerospace Engineering Honor Society, WPI
Level 1 High Power Rocketry Certified, National Association of Rocketry