

Mitchell Shulman

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EDUCATION

Rensselaer Polytechnic Institute
Bachelor of Science in Aerospace Engineering
Minor: History
GPA 3.21
Dean's Honor List: Fall 2020, Spring 2021, Fall 2022; Dean's List: Spring 2022

Troy, NY
Expected May 2024

PROFESSIONAL ASPIRATIONS

Seeking a graduate education in the Aerospace Engineering field. Looking to build upon interests in fluid dynamics, computational fluid dynamics, and hypersonic flows and technology.

RELEVANT COURSES

Aerospace Structures and Materials • Modeling and Analysis of Uncertainty • Engineering Design • Fluid Mechanics
Thermodynamics • Aerodynamics I • Modeling and Control of Dynamic Systems • Numerical Methods
Aeroelasticity and Structural Vibrations • Control Systems Lab • Aerospace Structures Lab
Flight Mechanics • Introduction to Computational Fluid Dynamics • Heat Transfer • Propulsion Systems
Fluid Dynamics Lab

RELATED SKILLS

Siemens NX • AutoCAD • SolidWorks • Python • MATLAB • Simulink • Altair HyperWorks • ParaView
G Suite (Docs, Slides, Sheets, Forms, Gmail) • MS Office Suite (Word, PowerPoint, Excel, & Outlook)

RESEARCH EXPERIENCE

Center for Flow Physics and Control
3D flow measurement using PPIV

September 2023- Present

Undergraduate research assistant for experimental research using a water tunnel to study the effects of a jet on an airfoil in low Reynolds number flow.

- Model design and experimental set up.
- Facility operations and data collection.
- Data processing.

Finned Heat Sink

October 2023- Present

Design a finned heat sink to decrease the temperature of a small heater.

- Use heat transfer principles to validate design choices.
- Model design in CAD.

Delta Alpha

September 2023- Present

Map the coefficients of lift and drag on different airfoils in a turbulent flow using computational fluid dynamic skills and software.

- Model airfoils using CAD.
- Design mesh for geometries
- Analyze CFD results to determine lift and drag coefficients.

Search and Rescue Rover

February- April 2022

Designed and manufactured a functioning prototype Search and Rescue rover to aid in rescue of workers in hazardous work environments.

- Collaborated with a team of seven students to develop and assemble a working rover prototype.
- Lead the design and manufacturing of an associated subsystem (the black box)
- Implemented design-build-test cycle.
- The subsystem prototype successfully operated in 400 degrees Fahrenheit for 30 minutes, exceeding project goals.

AWARDS AND ASSOCIATIONS

Rensselaer Leadership Award

Fall 2020- Present

Merit- based awards given in recognition of outstanding academic and personal achievements, strong commitment to excellence, and intellectual curiosity.

National Society of Leadership and Success

Inducted August 2021

PROFESSIONAL EXPERIENCE

Employment

Pratt & Whitney

F119 Support Equipment Engineer Intern

May 2023- August 2023

Provide field sustainment activities for the F119 engine.

- Develop expertise in the F119 engine hardware and support equipment processes.
- Communicate status and issues to USAF counterparts regarding support equipment issues.
- Identify support equipment issues and help brainstorm proactive solutions to meet USAF needs.
- Assist in authoring technical source data needed to support the fielded product.

Extracurricular activities

RPI's ACHA Club Hockey

December 2021-Present

Player as well as team treasurer, responsible for managing an annual budget of \$50,000.

The Alpha Chapter of Theta Xi

May 2021-Present

Professional Skills

Leadership • Problem Solving • Prioritization • Effective Communication