John Parks

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Objective

I am a motivated engineer with a Bachelor of Science in Aeronautical Engineering from Rensselaer Polytechnic Institue. I seek to build on my knowledge of aircraft design, learn to better utilize my technical skills, and improve my professional and communication skills.

Education

Bachelor of Science, Aeronautical Engineering   May 2020
Rensselaer Polytechnic Institute, Troy, NY
GPA: 3.97/4.0

Experience

Graduate Research   August 2021 - Present
Rensselaer Polytechnic Institute, Troy NY
- Designed model of SWiFT aircraft wing equipped with active flow control
- Studied effect of steady blowing on separation with windtunnel testing to complement a numerical study performed on the SWiFT aircraft in 2020

Air Force Research Laboratory (RQVA)   July 2020 - Present
Air Force Research Laboratory, Wright Patterson Air Force Base, OH
- Aerospace Engineer in the PAQ Program

Air Force Research Laboratory Internship (RQVA)   May - August 2019
Air Force Research Laboratory, Wright Patterson Air Force Base, OH
- Analyzed mission performance of experimental laminar flow aircraft
- Developed python package to anlayze the parasite drag on a user defined aircraft

Undergraduate Research   January 2019 - June 2020
Rensselaer Polytechnic Institute, Troy NY
- Aided in the design and fabrication of a swept wing wind tunnel model for testing flow control devices that delay the onset of turbulence caused by crossflow instabilities

Rensselaer Design Build Fly   September 2017 - March 2020
Rensselaer Polytechnic Institute, Troy NY
- Chief Engineer (2019-20): Designed aircraft to optimize AIAA Design Build Fly competition performance. Performed stability analysis and facilitated communication within engineering team

Awards

Rensselaer Leadership Award: Awarded for outstanding academic and personal achievements, a strong commitment to excellence, and illustration of intellectual curiostiy

Summa Cum Laude: Honor awarded at graduation in regonition of exceptional GPA

Tau Beta Pi: National Engineering Honor Society

Sigma Gamma Tau: National Aerospace Engineering Honor Society

Archimedian Gathering: Gathering that celebrates outstanding academic acheivement at Rensselaer

Skills

Programming Experience: C++, Julia, Python, R, MATLAB, Tensorflow
Linux: Familiarity with GNU/Linux operating system, bash/zsh shell scripting, building software from source
Document Creation: LaTeX, Microsoft Office
CAD: Siemens NX, CATIA V5, FreeCAD
Design, and Analysis: OpenVSP, AVL, XFOIL, Altair Hyperworks, Engineering Sketch Pad
Manufacturing: Composite Modeling (Wet Layup, VARTM), Laser Cutting, 3D Printing, CNC Manufacturing
Wind Tunnel Testing: Experiment Design, Model Design, Data Collection, Data Analysis