Johnathan Corbin

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EDUCATION

Rensselaer Polytechnic Institute (RPI), Troy, NY
Bachelor of Science, Aerospace Engineering , May 2020 GPA: 3.67
Concentration: Space Flight

PROJECTS

Rock Raiders (RPI's University Rover Challenge Team): As a member of Rock Raiders, I have had a variety of first-hand experience designing and building a rover chassis, robotic arm, and an autonomous system for analyzing soil samples using computer vision. In addition to learning valuable engineering skills, my team has helped me learn how to work effectively on teams with a variety of people.

RPI Drone Club: In 2018, I helped found a club on campus that focuses on building and flying drones. The club teaches members how to build drones and started racing drones in 2018. The past two years the club has qualified for two national drone races.

Introduction to Engineering Design: As part of a course at RPI, I was placed on team with 5 people and tasked with generating concepts for a product and seeing it through from design to manufacturing. Our team chose to design and build an autonomous floor scrubber, in which I was responsible for creating a fluid dispersion system.

SKILLS

Programming Languages: C++, Matlab, XML, LaTeX, and Python
Engineering: Machining, Circuitry, Arduino, Raspberry Pi, 3D Printing/Additive Manufacturing, Engineering Design, Stress Analysis, Wind Tunnel Experience
Applications: CAD (Solidworks, NX, and Inventor), Maple, Matlab, Minitab, Microsoft Office Suite, STK, Oxygen XML Editor, Visual Studio

EXPERIENCE

Data Conversion Specialist Synesis7
Summers 2017, 2018 Butte, MT
Interned as a data services specialist handling data analysis, improvements, graphics conversion, XML data modeling and structuring, and QA processes for data updating and sustainment. I worked closely with the Presidential Helicopter and NAVAIR programs (MH-60, MH-53, VH/UH-60, and S92/VH-92A).

Undergraduate Researcher CATS at RPI
Spring 2018 - Present Troy, NY
At the Center for Autonomous Systems and Technologies I am involved in research aimed at developing and constructing autonomous systems. I've worked on projects dealing with autonomous welding, wind turbine assembly, and textile manufacturing. CATS has helped me develop my CAD, machining, rapid prototype development, and teamwork skills.

RELEVANT COURSEWORK

Spaceflight Mechanics: Analysis of spacecraft trajectories, target rendezvous, and interception. Rigid body dynamics with application to gyro dynamics, stabilized platforms, gravity-gradient and spin stabilization of satellites.

Aerodynamics: The fundamental principles of fluid dynamics, theory of inviscid incompressible flow, thin airfoils, high aspect ratio wings, delta wings, vortex, panel and vortex lattice methods, subsonic compressible small-disturbance theory, transonic flow.

Miscellaneous

Dean's Honor List (RPI), Class of 2016 High School Valedictorian, Eagle Scout (Boy Scouts of America Troop 1608)