

Education

Rensselaer Polytechnic Institute , Troy, NY B.S. in Mechanical Engineering and Aeronautical Engineering GPA: 3.60/4.0, Dean's Honor List	Sep 2015–Dec 2017
McGill University , Montreal, QC, Canada GPA: 3.04/4.0	Sep 2013–June 2015

Experience

Mechanical Engineering Intern, Affiliated Engineers Incorporated (AEI) , Rockville, MD	June–Aug 2017
<ul style="list-style-type: none"> Used Autodesk AutoCAD and Revit to design fluid systems and mechanical structures. 	
Undergraduate Research Fellowship, National Institute of Standards and Technology , Gaithersburg, MD	May–Aug 2016
<ul style="list-style-type: none"> Worked in the Mechanical Systems and Controls Group to make energy efficient fluid systems. Installed, calibrated, and tested instrumentation including RTDs, pressure transducers, flowmeters, and actuators. Used LabVIEW and MATLAB to work towards automated laboratory operation for evaluating advanced control algorithms. Wrote blueprints and technical manual for operation of lab instrumentation. Gave technical presentation to NIST staff. 	
Engineering Project Support Intern, Affiliated Engineers Incorporated (AEI) , Rockville, MD	May–Aug 2013
<ul style="list-style-type: none"> Ensured that contract specifications were being met on constructions site at the National Institute of Health. Performed review of mechanical systems such as ventilation, piping, heating, and cooling. 	

Leadership

Vehicle Team Lead, RPI Rocket Team , Troy, NY	Aug 2017–Present
<ul style="list-style-type: none"> Write Preliminary Design Review (PDR), Critical Design Review (CDR), and Flight Readiness Review (FRR). Design, manufacture, and test rocket's structure to achieve competition requirements set by NASA. Work closely with payload and recovery teams to ensure successful integration. 	
Learning Assistant, Rensselaer Polytechnic Institute , Troy, NY	Jan 2016–Present
<ul style="list-style-type: none"> Supervise academic development for residence hall (150 freshman) Plan and facilitate academic assistance workshops, conduct review sessions, hold office hours. Assist in tutoring subjects such as Physics, Calculus, Statics, and Computer Programming. 	
Safety Officer, RPI Rocket Team , Troy, NY	Dec 2015–May 2017
<ul style="list-style-type: none"> Performed Probabilistic Risk Assessment (PRA), and Failure Modes and Effect Analysis (FMEA) on rocket. Developed Arduino based PID controller that uses a stepper motor and 3D printed drag flaps to alter Rocket's flight path. Wrote Preliminary Design Review (PDR), Critical Design Review (CDR), and Flight Readiness Review (FRR). 	
Drive Systems Division Leader, McGill Robotics, Mars Rover Team , Montreal, QC	Aug 2014–May 2015
<ul style="list-style-type: none"> Led a ten person team that constructed the wheels, suspension, steering, and frame of a Mars Rover. Designed components with Autodesk Inventor and fabricated in machine shop. Conducted project design review with engineers from the Canadian Space Agency. 	
Mechanical Section Leader, McGill Robotics, Autonomous Racing Car Design Team , Montreal, QC	Jan–Aug 2014
<ul style="list-style-type: none"> Responsible for five person team to produce the mechanical section of a robotic car capable of carrying two people. Supervised machining of robot chassis. Oversaw testing and integration of mechanical and electrical sections. 	

Skills

Languages: C/C++, MATLAB, National Instruments LabVIEW, Python, Java, Arduino, MIPS assembly, FORTRAN
Applications: Siemens NX, Microsoft Office (Excel, Word, etc), Machine Tools (lathe, vertical/horizontal mill, etc.)

Activities

Pi Tau Sigma, Mechanical Engineering Honor Society , member	May 2017–Present
RPI Embedded Hardware Club , member	Oct 2015–Present
Rensselaer Cheerleading Team , member	Sep 2015–Dec 2016
McGill Rocket Team , Drag reduction, stability, and control. Wrote programs to predict rocket trajectory	Dec 2014–May 2015
Boy Scouts of America , Eagle Scout, Senior Patrol Leader	Aug 2008–Aug 2013