Paul S. Schulman
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(248)-202-5902 schulm14@msu.edu
24 October 2018
Portfolio: SchulmanAstro.com

Objective

To pursue a PhD and conduct research in the field of Aerospace Engineering and Space Systems.

Education

Michigan State University (August 2014 - May 2019), GPA: 3.78

- Major: Mechanical Engineering
  - Concentration: Aerospace Engineering
- Minor: Computer Science
- 190 credits expected upon graduation
- 3 graduate level credits (ME 810 Computational Fluid Dynamics and Heat Transfer)

Professional Engineering and Research

MSU Smart Microsystems Laboratory Research Assistant (2016 - Present)

- Lab focus is in aquatic and bio-inspired robotics
- Research assistant role is to lead development of robotic systems to be used in graduate research
- Developed and constructed autonomous ROV (2016)
- Developed and constructed autonomous electrical motorboat (2017)
- Currently developing autonomous sailboat (2018)

Fraunhofer-MSU Center for Coatings and Diamonds CAD/Research Intern (2016)

- Lab focus is in the production, application, and use of synthetic diamond materials
- Intern role was to design and model research equipment, products, and facilities for MSU and Fraunhofer faculty and customers conducting research

General Motors Manufacturing Engineering Intern - Lansing-Delta Township Plant Paint Shop (2016)

- Nerve Center Manager - Oversaw the planning and construction of a quality control nerve center
- Defect analysis - Studied paint defects to debug and improve the operation of 56 new and 20 pre-existing topcoat paint application robots
- Assisted in maintaining operations of the paint and sealer application building

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Engineering Teams

MSU Rocketry Team - Controls/Fins Lead (former), Founding Member (2017 - Present)

- Designed, modeled, tested, and studied fins and control surfaces
- Designed and built Class I rocket which placed 12th overall out of 129 Teams at the 2018 Spaceport America Cup
- Currently assisting in development of a hybrid rocket motor

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MSU Unmanned Systems Team - Co-Captain (2014 - Present)
- Have developed several weather and impact proof builds for UAVs
- Currently developing a hybrid fixed wing UAV with VTOL capabilities

MSU Formula Race Team, (2014 - 15)
- Chassis/aerokit team: helped to manufacture aluminum and carbon fiber parts

Farmington Unified Robotics Team #3414 (2012 - 14)
- Team leader: primary focus on mechanical build and recruiting
- Competed in the 2013 F.I.R.S.T. Robotics Competition World Championships

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U.S. Army

Michigan Army National Guard (2015 - Present)

- 1433rd Engineering Company (SAPPER), 507th Engineering Battalion
    - Served as Cadet shadowing Platoon Leaders
- Intending to commission as an Aviation officer and UH-60 Blackhawk or CH-47 Chinook pilot

Sapper Leader Course graduate (2018)

- An elite Engineer Leader course designed to teach Soldiers technical skills while pushing them to their physical and mental limits
- Course includes 2 weeks of technical skills and 2 weeks of combat operations designed to stress and evaluate student leadership abilities
- Technical skills taught: air operations, waterborne operations, mountaineering, explosives, radio communications, foreign weapons systems, medical, survival

Air Assault graduate (2017)

- An 11-day course focused on helicopter operations
- Subjects include aircraft performance and capabilities, sling loads, and rappelling

MSU Army ROTC (2015-Present)
- Cadet Operations Officer
    - 1 of 4 battalion cadet leadership positions
    - Responsible for planning and synchronizing weekly training for battalion of approximately 200 cadets
- Ranger 1 Recruit Training Officer
    - Responsible for planning and leading training, assessment, and selection of cadets wishing to join MSU ROTC's historic pre-ranger extracurricular unit

German Armed Forces Proficiency Badge - Gold
- Awarded for completion of several testing events including physical fitness, medical, marksmanship, and CBRN

Norwegian Foot March Badge
- Awarded for completion of an 18.6-mile foot march at a pace of no more than 14:30 per mile

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Licenses and Certifications

FAA Private Pilot License (Airplane Single Engine Land)

- Authorizes an individual to fly a specified category and class of aircraft non-commercially
- Testing requirements include of meteorology, flight dynamics, aircraft instrumentation, aircraft mechanics, and laws and regulations
- Currently hold 80 hours of total flight time

FAA Remote Pilot License

- Authorizes an individual to fly UAVs for private and commercial purposes within the laws and regulations set by the FAA

FCC Amateur Radio Technician

- Authorizes an individual to transmit on modes, frequencies, and electrical systems as described by the FCC for Technician class licenses
- Testing requirements include electrical engineering calculations, transmission systems, radio wave propagation, transmission to spacecraft, and laws and regulations

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Academically Supported Skills

Python (CSE 231, CSE 331)	ANSYS/FEA (ME 475)
C/C++ (CSE 232, CSE 320)	Excel (CSE 101, EGR 102)
MATLAB (EGR 102, ME 810)	ARM Assembly (CSE 320)