Robert N. Saunders, PhD

rns294.github.io

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OBJECTIVE – I am seeking opportunities as a senior scientist/engineer that offer the ability for me to develop as a leader for personnel and projects.

EDUCATION

Doctor of Philosophy, Industrial Engineering, Texas A&M University

Certificate in Applied Statistics, Statistics, Texas A&M University

Master of Science, Aerospace Engineering, Texas A&M University

Bachelor of Science, Aerospace Engineering, Virginia Tech

PROFESSIONAL EXPERIENCE

Mechanical Engineer, U.S. Naval Research Laboratory (NRL) Sept 2016 – Present
Biomechanics Engineer, Leidos Inc. c\o NRL June 2015 – Sept 2016

- Machine learning to emulate simulations in the metal additive manufacturing process
- Development of strategies to understand, prevent, and protect Warfighters from injuries due to blast, blunt, and directed energy events.
- Finite element modeling of extreme mechanical events such as plasticity, high-rate impact and damage, and biomechanics
- *Naval Research Laboratory Edison Memorial Graduate Training Program Recipient*

Graduate Research Assistant, Texas A&M University Aug 2013 – May 2015

- Design, simulation, and optimization of shape memory alloy-based structures

Summer Scholar, U.S. Air Force Research Laboratory May 2014 – Aug 2014

- Design and construction of a deployable tensioned helical structure using composites

OTHER EXPERIENCE

Naval Research Laboratory Student Mentor
- Served as a technical mentor for 2-4 summer students each year.

CASMART Design Challenge Advisor
- Served as an advisor to a group of 5 undergraduates designing a deployable solar array.

Virginia Tech Microgravity Research Team
- Investigated a moving mass actuator control system for re-entry vehicles and small satellites as part of NASAs Reduced Gravity Flight Education Program.

PROFESSIONAL ACTIVITIES

- American Society of Mechanical Engineers, Member
- Reviewer for multiple journals, incl. Journal of DoD Research and Engineering
- Technical conference session/symposium organizer and chair

SKILLS

- Computer Languages – Fortran, Python, R, Matlab
- Software – Abaqus, COMSOL, ScanIP, Solidworks, Mathematica, Microsoft Off
- Basic machine shop and mechanical testing experience
- Finite Element Modeling, Mechanics of Materials, Machine Learning, Statistical Modeling, Time and Personnel Management
- Coursera certificates in project management and machine learning

PUBLICATIONS – 1 Book Chapter, 7 Journal Articles, 17 Conference Proceedings, 4 Technical Reports, 28 conference/seminar presentations