

Austin Reid Roe

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EDUCATION

Virginia Commonwealth University (VCU), Richmond, VA
Ph.D. candidate in Mechanical and Nuclear Engineering, Expected May 2022
Cumulative GPA: 3.5

Virginia Military Institute (VMI), Lexington, VA
Bachelor of Science, Mechanical Engineering, May 2017
Concentration: Nuclear Engineering; Minors: Mathematics and Physics
Dean's List (6), Cumulative GPA: 3.341, Major GPA: 3.362

Successfully passed the Fundamentals of Engineering Exam 11/2017

Mechanical Engineering Study Abroad in Berlin, Summer 2015

- Experienced a new culture while taking 6 credit hours and weekly excursions to various factories and plants.

RESEARCH

Summer Undergraduate Research, Summers 2015, 2016

- Conducted funded research with a professor
- 2015: Researched the material properties of athletic shoe soles with compression testing for computational modelling conducted at VMI, findings presented in SURJ Undergraduate Research Symposium
- 2016: Researched the magnetization dynamics of rectangular nanomagnets due to their dependence on size, aspect ratio and externally applied magnetic fields conducted at Virginia Commonwealth University, findings presented in SURJ Undergraduate Research Symposium
- Abstract accepted to be presented at 2019 Joint MMM-Intermag Conference

SKILLS

Nanomagnetic Devices

Thermal Fluid Systems

Mechanical Design

Software:

- Solidworks, ANSYS, MuMax 3, Engineering Equation Solver, Mathcad, MATLAB, Excel, AutoCAD, Rhinoceros

LEADERSHIP

Pi Tau Sigma International Mechanical Engineering Honor Society Member
American Society of Mechanical Engineers (ASME) Member

Rat (New Cadet) Challenge Lieutenant, Fall 2016, **Rat Challenge Sergeant**, Fall 2015, **Rat Challenge Corporal**, Fall 2014

- Rat Challenge is an intense physical development program designed to allow the new VMI cadets an opportunity to challenge themselves
- Led new cadets through numerous obstacles
- Organized and supervised activities for over 40 people
- Facilitated the growth of leadership and camaraderie among the new cadets

Summer Transition Program Counselor, Summer 2015

- Competitively selected by the to be a counselor for VMI freshman
- Led over 30 incoming freshmen through physical training