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1286 Auburn Grove Lane
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RESEARCH EXPERIENCE

Research Assistant for [The NIFI Group](#), Virginia Tech Jan 2017 - Present

- Designed and carried out experiments to study passive anti-frosting surfaces and the mechanics of inter-droplet ice bridging.
- Wrote Python applications to speed up research calculations and data processing.
- Presented a talk and poster findings at the 2017 APS DFD conference.

Team Leader for Robotics Capstone Design Project, Virginia Tech Mar 2017-Present

- In charge of meetings, programming, communicating with advisers, and resolving team disputes.
- Researching and writing a Python human-robot interaction model that predicts crowd movements in response to robotic intervention during a panic situation adapted from the Social Force Model.
- Building robots that use custom pursuit/evasion algorithms and motion tracking to play Sharks and Minnows with humans in order to test our human-robot interaction model.

Research Assistant for [The Socha Lab](#), Virginia Tech 2016

- Used a 3d motion capture system to analyze how flying snakes cross gaps between branches.

LABORATORY EXPERIENCE

Mechanics Lab, Virginia Tech 2017

- Performed experiments and signal processing to measure strain, pressure, temperature, and acceleration using both National Instruments and Arduino systems.
- Autonomously engineered a small Arduino system to alert cyclists of approaching cars.

Mechanics of Materials Lab, Virginia Tech 2016

- Performed tensile, fracture, compressive, and other tests on polymers and metals using Instron and MTS testing machines.

Fluid Mechanics Lab, Virginia Tech 2016

- Performed drag tests on various bodies, flow analysis, and scientific writing.

EDUCATION

B.S. Engineering Science and Mechanics, Virginia Tech Graduating May 2018

B.S. Physics, Virginia Tech Graduating May 2018

Minors: **Math, Astronomy**

GPA: **3.74**

COMPUTER SKILLS

Intermediate Knowledge | Python, Arduino, Mathematica, MATLAB, GitHub, Microsoft Office

Basic Knowledge | C, C++, HTML, Inventor, \LaTeX

Public Projects | github.com/CoreySpohn

SCHOLARSHIPS AND HONORS

Hugh D. Ussery Physics Scholarship 2017

- Awarded for excellence in scholarship and a promising career.

3 Time Awardee of Robert C. Richardson Physics Scholarship 2014, 2015, and 2016

- Awarded for academic talent, responsibility, and industry.

Sigma Pi Sigma Physics National Honors Society 2016

Eagle Scout 2011

OTHER WORK AND VOLUNTEER EXPERIENCE

Preschool Teacher, Reston Children's Center 2014-Present

- Work as a substitute teacher for 2-5 year-olds while on break from school.
- Volunteer when no substitute is required.

Food Technician, Virginia Tech Dining Services 2014-2015

- Trained in customer service and delivered quality service in a fast paced environment.