

College Address:  
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# Corey Spohn

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1286 Auburn Grove Lane  
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## EDUCATION

**B.S. Engineering Science and Mechanics**, Virginia Tech  
**B.S. Physics**, Virginia Tech  
Minors: **Math, Astronomy**  
GPA: **3.74**

Graduating May 2018  
Graduating May 2018

## RESEARCH EXPERIENCE

**Research Assistant** for [The Boreyko Lab](#), Virginia Tech Jan 2017-Present  
•Designed and carried out experiments to study passive anti-frosting surfaces and the mechanics of inter-droplet ice bridging.  
•Presented a talk and a poster at the 2017 APS DFD conference.  
•Wrote Python applications to speed up research calculations and data processing.

**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.

## 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

## COMPUTER SKILLS

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

Basic Knowledge | C, C++, HTML, Inventor,  $\text{\LaTeX}$

Public Projects | [github.com/CoreySpohn](https://github.com/CoreySpohn)

## 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.

**Volunteer**, C-Tech<sup>2</sup> 2017  
•Demonstrated my research with the Boreyko Lab for high school students.

**Food Technician**, Virginia Tech Dining Services 2014-2015  
•Trained in customer service and delivered quality service in a fast paced environment.