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# Corey Spohn

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## RESEARCH EXPERIENCE

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|----------------------|---|
| Jan 2017-<br>Present | <b>Research Assistant</b> for <a href="#">The NIFI Group</a> , Virginia Tech Jan 2017 - Present <ul style="list-style-type: none"> <li>•Designed and carried out experiments to study passive anti-frosting surfaces as well as the mechanics of inter-droplet ice bridging.</li> <li>•Wrote Python applications to speed up research calculations and data processing.</li> <li>•Conducting further experiments and preparing to present at the APS DFD 2017 conference.</li> </ul>  |
| Mar 2017-<br>Present | <b>Team Leader</b> for Robotics Capstone Design Project, Virginia Tech <ul style="list-style-type: none"> <li>•In charge of meetings, programming, communicating with advisers, and resolving team disputes.</li> <li>•Researching and writing a Python human-robot interaction model that predicts crowd movements in response to robotic intervention during a panic situation.</li> <li>•Building a team of robots that use pursuit/evasion algorithms and motion tracking to play Sharks and Minnows with humans in order to refine our human-robot interaction model.</li> </ul> |
| 2016                 | <b>Research Assistant</b> for <a href="#">The Socha Lab</a> , Virginia Tech <ul style="list-style-type: none"> <li>•Used a 3d motion capture system to analyze how flying snakes cross gaps between branches.</li> </ul>  |

## LABORATORY EXPERIENCE

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| 2017 | <b>Mechanics Lab</b> , Virginia Tech <ul style="list-style-type: none"> <li>•Performed experiments and signal processing to measure strain, pressure, temperature, and acceleration using both National Instruments and Arduino systems.</li> <li>•Engineered a small, autonomous system to alert cyclists of approaching cars.</li> </ul> |
| 2016 | <b>Mechanics of Materials Lab</b> , Virginia Tech <ul style="list-style-type: none"> <li>•Performed tensile, fracture, compressive, and other fundamental tests on polymers and metals using Instron and MTS testing machines.</li> </ul>  |
| 2016 | <b>Fluid Mechanics Lab</b> , Virginia Tech <ul style="list-style-type: none"> <li>•Performed drag tests on various bodies, flow analysis, and scientific writing.</li> </ul>   |

## EDUCATION

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| Virginia Tech | <b>B.S. Engineering Science and Mechanics</b> , Graduating May 2018<br><b>B.S. Physics</b> , Graduating May 2018<br>Minors: <b>Math, Astronomy</b><br>GPA: <b>3.74</b> |
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## COMPUTER SKILLS

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|------------------------|---|
| Intermediate Knowledge | Python, Arduino, Mathematica, MATLAB, Microsoft Office            |
| Working Knowledge      | C, C++, HTML, Inventor, GitHub, $\text{\LaTeX}$                   |
| Public Projects        | <a href="https://github.com/CoreySpohn">github.com/CoreySpohn</a> |

## SCHOLARSHIPS AND HONORS

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|-------------------------|--|
| 2017                    | <b>Hugh D. Ussery</b> Physics Scholarship <ul style="list-style-type: none"> <li>•Awarded for excellence in scholarship and a promising career.</li> </ul>     |
| 2014, 2015,<br>and 2016 | <b>Robert C. Richardson</b> Physics Scholarships <ul style="list-style-type: none"> <li>•Awarded for academic talent, responsibility, and industry.</li> </ul> |
| 2016                    | <b>Sigma Pi Sigma</b> Physics National Honors Society  |
| 2012                    | <b>Eagle Scout</b>   |

## OTHER WORK AND VOLUNTEER EXPERIENCE

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|------------------|---|
| 2014-<br>Present | <b>Preschool Teacher</b> , Reston Children's Center <ul style="list-style-type: none"> <li>•Work as a substitute teacher for 2-5 year-olds while on break from school.</li> <li>•Volunteer when no substitute is required.</li> </ul> |
| 2014-<br>2015    | <b>Food Technician</b> , Virginia Tech Dining Services <ul style="list-style-type: none"> <li>•Trained in customer service and delivered quality service in a fast paced environment.</li> </ul>                                      |