

# Sarah C. Simmons

## Recognitions - Honors - Awards

### *Homeschool Profile Student Achievement Highlight*

|                                                                                                                        |                                                                                                                  |                                                                                                                                 |                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>National STEM Recognition</b><br>eCybermission National First Place, Broadcom Top 30, Invention Convention Finalist | <b>Innovation and Engineering</b><br>Repeated Grand Champion, Lemelson, Invention, Biomedical Engineering Awards | <b>Academic and Service Achievement</b><br>Congressional Medals and Certificates, College Board, NSHSS, Presidential Excellence | <b>Humanities and Arts</b><br>Writing and Essay Awards, Visual Arts Recognitions, and Fine Arts Awards |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|

## SCIENCE TECHNOLOGY ENGINEERING and MATHEMATICS

| Year and Program                                                                                                                   | Project or Recognition                                                                                                                                                                                                                                            | Award or Distinction                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2026 Ferring Pharmaceuticals and U.S. Congressional Award's STEM Recognition</b>                                                | <i>Ferring Pharmaceuticals, in partnership with the U.S. Congressional Award program, recognizes students who exhibit an exceptional aptitude for innovation and creativity in the fields of Science, Technology, Engineering, and Mathematics</i>                | <ul style="list-style-type: none"> <li>STEM Star Award</li> </ul>                                                                                                                                                           |
| <b>2025 Capitol Area Science Fair, an ISEF Affiliate</b>                                                                           | <i>Regional STEM competition and the International Science and Engineering Fair. Project included written paper, oral presentation, poster, and working prototype. "Integrating E-Textiles, Nanotechnology, and AI to Enhance Physiological Data Acquisition"</i> | <ul style="list-style-type: none"> <li>1st Place, Senior Engineering, Applied Science, and Technology</li> <li>1st Place, American Engineers Association-Harrisburg Award</li> <li>Finalist Grand Champion Award</li> </ul> |
| <b>2025 Pennsylvania Governor's STEM Competition, sponsored by the P.A. Governor's Office and the P.A. Department of Education</b> | <i>Highest state level STEM competition in the Commonwealth of Pennsylvania. Project included written paper, poster, digital poster, and working prototype. "Integrating E-Textiles, Nanotechnology, and AI to Enhance Physiological Data Acquisition"</i>        | <ul style="list-style-type: none"> <li>Grand Champion Award</li> <li>Top 20 Pennsylvania STEM Projects</li> </ul>                                                                                                           |

| Year and Program                                                                                                       | Project or Recognition                                                                                                                                                                                                                                                                                                                                                                                | Award or Distinction                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2025 Junior Science and Humanities Symposium</b>                                                                    | <i>A national program that recognizes outstanding research and innovation in STEM fields. Project included a written paper and oral presentation. ““The Integration of Smart Textiles and Cutting Edge Technologies to Acquire Biofunction Data for Telemedicine””</i>                                                                                                                                | <ul style="list-style-type: none"> <li>Finalist, Regional Competition</li> </ul>                                                                                                                    |
| <b>2024 eCybermission, U.S. Army Educational Outreach Program (AEOP) and the National Science Teaching Association</b> | <i>Recognizes excellence in collaborative efforts to solve real-world problems in their local communities using science, technology, engineering, and math. Project included a written paper, poster, and oral presentations. “Bridging the gap between doctors and patients with respiratory diseases”</i>                                                                                           | <ul style="list-style-type: none"> <li>1st Place, National Competition</li> </ul>                                                                                                                   |
| <b>2024 PA Governor’s STEM Competition</b>                                                                             | <i>Highest state level STEM competition in the Commonwealth of Pennsylvania. Awards for written paper, poster, digital poster, oral presentation, and working prototype. Project title: “The Integration of Electrically Conductive Textile Technology and Unique Algorithms in the Acquisition and Analysis of Critical Pulmonary Data in Pennsylvania Patients with Respiratory Diseases”</i>       | <ul style="list-style-type: none"> <li>Grand Champion Award</li> <li>Top 20 Pennsylvania STEM Projects</li> </ul>                                                                                   |
| <b>2024 York-Adams County Science and Engineering Fair ISEF Affiliate</b>                                              | <i>A regional STEM competition and International Science and Engineering Fair sponsored competition. Project included written paper, oral presentation, poster, and working prototype. “The Application of Conductive Textile Technology and Novel Algorithms for a Clinical IoMT System in the Remote Acquisition and Analysis of Critical Pulmonary Data in Patients with Respiratory Diseases”</i> | <ul style="list-style-type: none"> <li>Invitation to Society for Science International Science and Engineering Fair</li> <li>Grand Champion Award</li> <li>Lemelson Award for Inventions</li> </ul> |
| <b>2024 eCybermission, U.S. Army Educational Outreach Program (AEOP) and the National Science Teaching Association</b> | <i>Recognizes excellence in collaborative efforts to solve real-world problems in their local communities using science, technology, engineering, and math. Project included a written paper, interviews, and oral presentation. “Bridging the gap between doctors and patients with respiratory diseases”</i>                                                                                        | <ul style="list-style-type: none"> <li>1st Place, Regional Competition, North-East</li> </ul>                                                                                                       |

| Year and Program                                                                                                       | Project or Recognition                                                                                                                                                                                                                                                                                                               | Award or Distinction                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2024 Invention Convention Henry Ford Foundation</b>                                                                 | <i>International STEM competition that focuses on using principles of engineering to design a prototype to address a real-world problem. Project included a written paper, oral presentations, poster, and working prototype. "Integrating Smart Textiles and IoMT to Expand Remote Healthcare for Chronic Respiratory Patients"</i> | <ul style="list-style-type: none"> <li>■ National Finalist</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| <b>2024 eCybermission, U.S. Army Educational Outreach Program (AEOP) and the National Science Teaching Association</b> | <i>This program recognizes excellence in collaborative efforts to solve real-world problems in their local communities using science, technology, engineering, and math. Project included a written paper, interviews, and oral presentation. "Bridging the gap between doctors and patients with respiratory diseases"</i>          | <ul style="list-style-type: none"> <li>■ 1st Place, Regional Competition, North-East</li> </ul>                                                                                                                                                                                                                                                                                                                   |
| <b>2023 Frederick County, MD STEM Competition, ISEF affiliate</b>                                                      | <i>A regional STEM and International Science and Engineering Fair sponsored competition. Project included written paper, poster presentation, oral presentation, and working prototype. "Smart Fabric Biosensing System for Monitoring Respiration Patterns in Horses with Respiratory Diseases."</i>                                | <ul style="list-style-type: none"> <li>■ 1st Place, Biomedical Engineering</li> <li>■ Washington DC Metropolitan Branch Commissioned Officers Association of the US Public Health Service</li> <li>■ Meritorious Achievement Award, Dr. R Ediger Award</li> <li>■ Excellence in Agricultural Research, Battelle National Biodefense Institute</li> <li>■ Outstanding Achievement Award, JLG Industries</li> </ul> |
| <b>2023 Mother Seton School STEM Fair</b>                                                                              | <i>A school level STEM competition. Project included a written paper, oral presentation, poster presentation, and working prototype. "Smart Fabric Biosensing System for Monitoring Respiration Patterns in Horses with Respiratory Diseases."</i>                                                                                   | <ul style="list-style-type: none"> <li>■ Outstanding Engineering Award</li> <li>■ Grand Champion Invention Award Certificate of Excellence in STEM</li> <li>■ 1st Place Engineering Invention Award</li> </ul>                                                                                                                                                                                                    |

| Year and Program                                                           | Project or Recognition                                                                                                                                                                            | Award or Distinction                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2022 Society for Science Broadcom MASTERS National STEM Competition</b> | <i>A school level STEM competition. Project included a written paper, oral presentation, poster presentation and working prototype. "Portable Bronchodilator for Equine Respiratory Disease."</i> | <ul style="list-style-type: none"> <li>■ Broadcom MASTERS Engineering Award, 2<sup>nd</sup> place</li> <li>■ Broadcom Top 30 Award, National Finalist</li> <li>■ Broadcom Top 300 Award, National Semi-Finalist</li> </ul>                                                     |
| <b>2022 Frederick County Science and Engineering Fair</b>                  | <i>A regional STEM competition. Project included a written paper, oral presentation, poster, and working prototype. "A Novel Approach to Resolving Equine Respiratory Distress."</i>              | <ul style="list-style-type: none"> <li>■ Grand Prize Winner Middle School Division</li> <li>■ 1st Place, Biomedical Engineering</li> <li>■ Lemelson Foundation Early Inventor Prize</li> <li>■ Hively Family Foundation Innovator Award for Outstanding Achievement</li> </ul> |
| <b>2022 Mother Seton School STEM Fair</b>                                  | <i>A school STEM competition. Project included a written paper, oral presentation, poster, and working prototype. "A Novel Approach to Resolving Equine Respiratory Distress."</i>                | <ul style="list-style-type: none"> <li>■ 1st Place Engineering Invention Award</li> <li>■ Grand Champion Award</li> </ul>                                                                                                                                                      |

## ACADEMIC and SERVICE RECOGNITIONS AND AWARDS

| Year and Program                                            | Project or Recognition                                                                                                                                                                                                                                                                                                                                                | Award or Distinction                                                                       |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>2026-2027. U.S. President's Education Awards Program</b> | <i>The U.S. Presidential Excellence Award honors academic achievement and commitment to learning. Minimum sustained GPA is 3.5.</i>                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>■ U.S. Presidential Excellence Award</li> </ul>     |
| <b>2026 U.S. Congressional Award Program</b>                | <i>U.S. Congressional Award is the U.S. Congress' highest honor award for civilian youth, recognizing individual initiative, service, and achievement. This award recognizes achievements in voluntary service, non-school related personal/academic development, and physical fitness over a 12-month period. Emma's award recognized her over 450 hours of work</i> | <ul style="list-style-type: none"> <li>■ Silver Medal, U.S. Congressional Award</li> </ul> |

| Year and Program                                          | Project or Recognition                                                                                                                                                                                                                                                                                                                                                | Award or Distinction                                                                                                 |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>2026 U.S. Congressional Award Program</b>              | <i>U.S. Congressional Award is the U.S. Congress' highest honor award for civilian youth, recognizing individual initiative, service, and achievement. This award recognizes achievements in voluntary service, non-school related personal/academic development, and physical fitness over a 12-month period. Emma's award recognized her over 300 hours of work</i> | <ul style="list-style-type: none"> <li>▪ Bronze Medal, U.S. Congressional Award</li> </ul>                           |
| <b>2025 National Society of High School Scholars</b>      | <i>National Society of High School Scholars recognizes high school scholars for their academic achievements as well as service to their local communities.</i>                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>▪ Honor Society Membership</li> <li>▪ Honor Society Ambassador</li> </ul>     |
| <b>2025 College Board</b>                                 | <i>College Board recognition of outstanding achievement by high school students in rural and small towns who maintain a high GPA and score in the top percent on standardized College Board Testing. Outstanding Academic Achievement</i>                                                                                                                             | <ul style="list-style-type: none"> <li>▪ Rural and Small-Town Recognition Award</li> </ul>                           |
| <b>2025-2026 U.S. Congressional Award Program</b>         | <i>U.S. Congressional Award is the U.S. Congress' highest honor and sole non-profit award for civilian youth, recognizing individual initiative, service, and achievement. These awards require progressive achievement in the areas of volunteer service, personal/academic development, and physical fitness.</i>                                                   | <ul style="list-style-type: none"> <li>▪ Gold, Silver, and Bronze Certificates, U.S. Congressional Awards</li> </ul> |
| <b>2023 National Junior Honor Society</b>                 | <i>National Junior Honor Society, Archbishop James Bayley Chapter at Mother Seton School. Invitation for membership in the National Junior Honor Society.</i>                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>▪ Honor Society Membership</li> </ul>                                         |
| <b>2023 U.S. President's Education Awards Program</b>     | <i>The U.S. Presidential Excellence Award honors academic achievement and commitment to learning. Minimum sustained GPA is 3.5.</i>                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>▪ U.S. Presidential Excellence Award</li> </ul>                               |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition award for sustained excellence in academic achievement.</i>                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Academic Excellence Award</i></li> </ul> |

| Year and Program                                          | Project or Recognition                                                                        | Award or Distinction                                                                                                     |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Science</i>        | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Science</i></li> </ul>        |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Math</i>           | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Math</i></li> </ul>           |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Language Arts</i>  | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Language Arts</i></li> </ul>  |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Social Studies</i> | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Social Studies</i></li> </ul> |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Spanish</i>        | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Spanish</i></li> </ul>        |
| <b>2023 Mother Seton School Academic Excellence Award</b> | <i>Mother Seton School academic recognition for excellence in the field of Art</i>            | <ul style="list-style-type: none"> <li>▪ <i>Mother Seton School Outstanding Achievement in Art</i></li> </ul>            |

## HUMANITIES and FINE ARTS AWARDS

| Year and Program                                    | Project or Recognition                                                                                                                     | Award or Distinction |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <b>2021 Veterans of Foreign Wars, VFW Post 6658</b> | <i>This Veterans of Foreign War program is a competition that awards excellence in writing and in developing democracy-focused essays.</i> | Certificate of Merit |
| <b>2021 Hanover, PA Arts Guild</b>                  | <i>Hanover Area Arts Guild Juried Art Competition. Award for graphite drawing.</i>                                                         | Award of Excellence  |