

**EDUCATION** Voorhees High School 256 County Rd. 513 Glen Gardner, New Jersey

Graduation June 2017

**RESEARCH AND SOCIAL ACTION**

- Research at Rutgers- Present, I am conducting research to find the efficiency of using a plant-based bio filter to purify wastewater. Certain plants have been known to act as a natural filter of water impurities, by absorbing phosphorous and nitrates from water until it is pure. After determining the most productive aquatic plant at purifying the water, I will use CAD and MATLAB to create a prototype for an energy-efficient water purifying system that can be implemented into wastewater cleansing companies.
- New Jersey Governor's STEM Scholars- May 2017, My research group and I invented a Photoconductive Cell Mechanism that is a valid methodological replacement for a Platinum Voltage Machine in order to measure antioxidant activity. Our invention is more accurate a Pt Voltage Machine and costs significantly less to produce (\$70 vs \$3,000). This research will be honored at this year's Edison Patent Awards. This invention is in the final stage of being patented. I attend STEM conferences, tour research and development facilities, and meet with New Jersey STEM professionals and policymakers.
- New Jersey Governor's School of Engineering & Technology- July 2016, I attended classes on Micro and Macro Nanofabrication, Physics, Robotics, and the Fundamentals of Surgery. In my research project, my group and I created a pillow with e-textile pressure sensors using a circuit of conductive thread to monitor the health of the users along with their sleeping patterns. This device has been successfully patented. I was selected to work with the Nelson Mandela Future Engineers of the Globe Committee to solve real world problems in a cost-effective way.
- Hugh O'Brian Youth Leadership Conference-June 2015, I participated in unique leadership training, service learning and motivational building exercises used to inspire a global community dedicated to innovation and service.
- Girl Scout Gold Award Recipient-September 2013-present. My project has had a positive influence on the way the Randolph Regional Animal Shelter is viewed by the public. It has helped to bring attention to the huge pet homelessness problem in the United States.
- Girl Scout Service Unit Delegate-December 2014-present, I attend all delegate, annual, and special meetings. I am responsible for being knowledgeable about issues affecting Girl Scouts of America and my service unit. I serve as the primary communication link between area Girl Scout members and the regional council.
- Barnegat Bay Partnership Jellyfish Research Volunteer-June 2013-present, this organization is a congressionally designated National Estuary Program. I work on the Jellyfish Project in various locations in the Barnegat Bay. I set barrier nets at bay beaches to test their effectiveness in excluding jellyfish from interacting with bathers. I swim on both sides of the barrier nets and identified entanglements in the barrier net. Any fish, crabs, or jellyfish collected in the net were identified and measured
- Hurricane Sandy Resource Center and People's Pantry Food Bank Volunteer-June 2013-present, I help the families shop for the food and supplies they need. I check families in at the front door. I do computer work, including inputting information and website troubleshooting. I support the families emotionally by listening to them. Working at this pantry has been especially meaningful to me because many families are still displaced due to the storm
- Special Needs Ministry Gym Activity Volunteer at St. Luke's in Long Valley-September 2013-present In 9<sup>th</sup> grade I taught religious education classes to 1<sup>st</sup> graders at St. Luke's Church in Long Valley. I prepared and taught the lessons. In 10<sup>th</sup> and 11<sup>th</sup> grade I volunteered for the Special Needs Ministry Gym Activity. I support the special needs athletes by playing soccer, baseball, basketball, and football with them
- Maestro Soccer Camp Counselor and Coach-June 2011-present I check campers in, run drills, training sessions, and run scrimmages. I provide coach feedback and run classroom sessions. I supervise off the field activities such as swimming, crafts, team bonding exercises.

**ATHLETICS, WORK and EXTRACURRICULARS**

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| • FC Bucks Elite Club National League Soccer Team-9,10,11,12 <sup>th</sup> grades   | Voorhees Varsity Soccer-10,11,12 <sup>th</sup> grades  |
| Won Top Playmaker and Top Player of Skyland Conference October 2015   | Wendy's Heisman State Finalist November 2016   |
| • Application Processing Internship at iCMS - 11 <sup>th</sup> grade  | Student Council Homeroom Representative- 9 <sup>th</sup> ,10 <sup>th</sup> ,11 <sup>th</sup> ,12 <sup>th</sup> grade |
| • Software Engineer Internship with Ocean County Technicians- 12 <sup>th</sup> -post graduate   | Class Treasurer- 10 <sup>th</sup> ,11 <sup>th</sup> ,12 <sup>th</sup> grade  |
| • National Mathematics Honor Society (Chapter Leader)- 11 <sup>th</sup> ,12 <sup>th</sup> grades  | Manna Graphics Design Internship- 2017 summer  |
| • High School Newspaper Photographer  | Starbucks Barista- 10 <sup>th</sup> grade  |
| • National Science Honor Society (Vice President)- 11 <sup>th</sup> ,12 <sup>th</sup> grade   | Relay for Life- 9 <sup>th</sup> ,10 <sup>th</sup> ,11 <sup>th</sup> ,12 <sup>th</sup> grades                         |
| • Journal of Youth Science Club (Founder/President)-10 ,11 <sup>th</sup> ,12 <sup>th</sup> grades   | Tutoring part-time job- 10 <sup>th</sup> ,11 <sup>th</sup> grades  |
| • Food Broker assistant part time job-9,10,11,12 <sup>th</sup> grades   | Math Competition Club- 9 <sup>th</sup> ,10 <sup>th</sup> ,11 <sup>th</sup> ,12 <sup>th</sup> grades                  |
| • Model United Nations-9,10,11,12 <sup>th</sup> grades (President, Awarded with Outstanding Delegate and Golden Gavel, Elected Premiere Diplomat) |  |

**AWARDS AND RECOGNITIONS**

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| • Featured in <i>Top Female's – Under 30 CEO</i> article about my startup company      | Two published papers in Curious Science Writers  |
| • The President's Volunteer Service Award- Bronze Level -9,10,11 <sup>th</sup> grades  | Wesleyan University Book Award-11 <sup>th</sup> grade  |
| • The USA Mathematical Talent Search Gold Medal-10 <sup>th</sup> grade                 | National Biology Olympiad (USABO) Gold Medal- 10 <sup>th</sup> grade                             |
| • AP Scholar with Distinction-10 <sup>th</sup> , 11 <sup>th</sup> grade                | National Academic Decathlon Silver Medal- 11 <sup>th</sup> grade                                 |
| • National Latin Exam Gold Medal (Perfect Score) -9,10 <sup>th</sup> grades            | Continental Math League Regional Team-9 <sup>th</sup> ,10 <sup>th</sup> ,11 <sup>th</sup> grades |
| • Outstanding Achievement US History Honors-9 <sup>th</sup> ,10 <sup>th</sup> grade    | National Language Arts League Award-9 <sup>th</sup> grade  |
| • Selected as a Teen Prevention Education Program Peer Educator-11 <sup>th</sup> grade | Selected to attend Rutgers Engineering Day-10 <sup>th</sup> grade                                |
| • Selected to attend Morristown Medical Center Shadow Day-11 <sup>th</sup> grade       | Selected to attend STEM Outreach Day At ExxonMobil-11 <sup>th</sup> grade                        |