

VIGNESH RAJMOHAN

Greer, SC

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EDUCATION

James L. Mann High School

GPA: 4.0 **Weighted GPA:** 5.31 **Class Rank:** 2/361

AP Coursework: Calculus AB & BC, Computer Science A & Principles, Statistics, Physics 1 & 2, Biology, Macroeconomics, US Government, US History, World History, Psychology, Environmental Science, Human Geography, English Language and Composition, English Literature and Composition

EXPERIENCE

Summer 2017: Research at Oak Ridge National Laboratory and University of Tennessee, Student Researcher

Research the abilities of *Moringa oleifera* as a coagulant and its effectiveness in the removal of common deadly metal-based water pollutants.

Summer 2017: Research Collaboration in Boston, Student Researcher

Explored the abilities of Bluetooth Modules HC-05 and HM-10 abilities for pairing and sending and receiving data

Applied tilt-sensing accelerometers to robotic control

Created an open source robot Wav3bot. Website: wav3bot.github.io

The open source nature of project lead to its development around the world, where various applications are currently being developed and explored.

Conducted research on the effectiveness of LEAP Motion sensing technology on robotics applications

Summer 2015-2017: SC Chamber of Commerce South Carolina Business Week

2017 Selected as CEO of company and for the Manufacturing in SC project.

Recipient of the S. Hunter Howard Scholarship

2016, 2015 Explored local, national, and global business through immersive simulations, forums with influential business leaders, and interactions with diverse business-oriented students.

Selected as CEO of company

Recipient of the Chelse Ward Eliot Scholarship

Summer 2017: American Legion Palmetto Boys' State

Explored local government and politics through experience in speech delivery, elections, campaigning, and studying relations between parties

Summer 2016: Massachusetts Institute of Technology LaunchX

Studied the best methods to optimize entrepreneurial efforts and entrepreneurial strategies through case studies.

Received certification

Summer 2015: Accelerate Program Boot camp by Clemson University and the Governors' School for Science and Math

Developed electronics and robotics projects under the guidance of professors from respective schools

RESEARCH

2017 (ongoing): A Novel Purification Process for Extracting Potable Water from Contaminated Water in Developing Countries Using Ready Available Materials

2016: A Study on the Ability and Effectiveness of Quad-rotors to Pollinate Flowering Plants

2015: A Study on the Reliability, Versatility, and Effectiveness of Compact Carbon Capture Devices (CCCD)

2014: A Study on the Effect of Surface Temperature and Salinity on the Amount of Carbon Dioxide Ocean Water Can Absorb to Create Carbonic Acid

2013: A Novel Method of Comparing Antioxidant Levels Using the Briggs Rauscher Oscillating Reaction

SCHOLARSHIP, AWARDS, AND HONORS

2017 Who Wants to Be a Mathematician: National Finalist (Top 10)

2017 S. Hunter Howard Jr. Scholarship (\$5000)

2017 SC Science Olympiad Environmental Science State Champion (\$8000)

2017 National Merit Commended Scholar

2017 SC Region 1 Science Fair 1st Place Champion

2017 Regional Stockholm Junior Water Prize

2017, 2016 MLK Youth Award for Academics

2017 Head Junior Marshall

2017-2012 Piano Guild National Competition: Superior Rating

2017 Boy Scouts of America: Life Scout Award

2017, 2016 National AP Scholar with Distinction

2016 Selected to Compete at National Judicial Competition (NJC) for mock trial

2015 Chelse Ward Eliot Scholarship

2015 J.L.Mann School Science Fair 1st Place

2014 Beta Club Quiz Bowl Nation Competition: 3rd Place

2014 Ace Award for Character

2014 Battle of the Brains: State Champion (Captain of Team)

2014 SC Piano Federation Room Winner Runner-up State Champion

2014 Discovery Education 3M Young Scientist Challenge State Merit Winner

2014 NASA Humans in Space Art Contest 3rd Place in Watercolor

2013 National History Day World Competition: Group Display National Finalist

2013 NASA and Clemson University NHHCP Asteroid Competition 2nd Place

2013 TaeKwonDo 3rd Degree Level 4 Black Belt

EXTRA-CURRICULAR ACTIVITIES

2013-Present Research (Details in section above)

2015-Present Web Design, App Development, Electronic and Robotics Research and Development (Languages: Java, Python, html, css, Objective-C, Swift, Arduino, App Inventor, TI-Basic) (GitHub account: "VigneshRajmohan")

2015-Present J. L. Mann Circuit Club (Electronics, Programming, Entrepreneurship) (Founder and President) (Website: manncircuitclub.github.io)

2017 Varsity Track and Field

2014-2016 FRC Robotics (decided to become a mentor for FLL)

2015-Present Student Council (Class President) (2017-2018: Student Body Treasurer) (Website Designer: mannspiritweek.com)

2011-Present YouTube Channel ("Vignesh Rajmohan" on Youtube)

2015-Present Digital Music Production ("Vignesh Rajmohan" on SoundCloud)

2016-Present iT2Pi (Local Innovator and Developer Organization) Member

2015-Present YMCA Youth in Government

2014-Present Roper Mountain Astronomers Club

2016-Present Varsity Track and Field

2014-2016 Junior Varsity Golf

2005-Present Piano
2015- Present Spanish Culture Club
2014-2016 Varsity Baseball: Statistician
2014-Present Academic Team (Core Team Member)
2016-Present National Honors Society
2015-Present Science Olympiad
2017 Political Awareness Club (Party Leader)
2016-Present Outdoors Club
2016-Present Environmental Club
2014-2015 Ping Pong Club

COMMUNITY SERVICE

2014-Present Roper Mountain Science Center Volunteering for Summer Camps and Second Saturday Events (Total of 250+ hours)
2016-Present Mentored FLL Lego Robotics Teams and selected to volunteer as a project judge, robotics technicality judge, and robot performance referee at various tournaments at the state and international level. (60+ hours)
2015-Present (2017) As Student Body Treasurer, raised \$206,432
 (2015, 2016) Helped raise over \$340,000 for local charities through Student Council Spirit Weeks as class of 2018 president (twice)
2011-Present Fall for Greenville Event (Total of 36 hours)
2016-Present Tutoring students on math and science after-school (25 hours)
2011-Present Various service projects through the Boy Scouts

ENTRE- PRENEURIAL LEADERSHIP

2017 Project Untether, a web service that provides natural water purification solutions for the developing world. (Website: projectuntether.org)
2017 Open-source robot (Wav3Bot), a novel and innovative method to interact with technology using accelerometer input. The open source nature of the project has led to several variants being developed around the globe.
 (Website: wav3bot.github.io)
2017 Planning and pushing the introduction of a Maker-space into J.L.Mann and a Hackathon (Hack-Mann) for all of Greenville County (Website: hack-mann.xyz)
2015 Founding of Mann Circuit Club, a club focused on improving education in programming, circuitry, making, and entrepreneurship in the J.L.Mann and Greenville County Community.