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**Academic Magnet High School**

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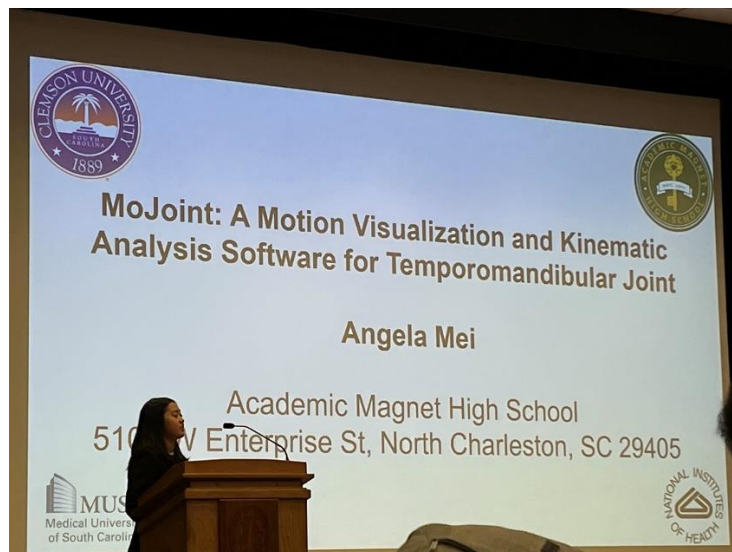
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## Senior Angela Mei wins second place in Department of Defense South Carolina Junior Science and Humanities Symposium

For the second time in two years, Academic Magnet High School senior Angela Mei has placed second in the Department of Defense South Carolina Junior Science and Humanities Symposium (JSJS). Mei won again for her original STEM creation, *MoJoint: A Motion Visualization and Kinematic Analysis Software for Temporomandibular Joint*.

Last year, after wowing the South Carolina judges with the MoJoint, Mei and her mentor, Academic Magnet science teacher Ms. Katy Metzner-Roop attended the National Junior Science and Humanities Symposium in Albuquerque, New Mexico. Mei took the advice of the judges and other experts there and improved her MoJoint software, presenting her revisions at the state level again this February.



*Angela Mei presenting at JSJS in 2023.*

For Mei, science, technology, engineering and math are the keys to solving real-world problems, not mere academic disciplines. Although presented with a variety of projects on which she could have focused in the 2021-2022 school year, Mei felt compelled to work on finding solutions for those who suffer from jaw pain, something with which she has personal experience. The National Institute of Dental and Craniofacial Research estimates that “as many as 10 million Americans” suffer from jaw joint disorders.

According to Mei, the MoJoint software system allows users to “calculate the motion of the jaw joint and the jaw bone,” facilitating better diagnosis and treatment

of jaw disorders. It “works by integrating the data from a medical imaging system with the data from a motion detection system. By combining these two sets of data, the motion of the jaw joint and jawbone can be visualized and calculated.”

Asked to reflect on Mei as a student and learner, Ms. Metzner-Roop shared “I am so proud of Angela. She took all of the input and suggestions that the judges gave her and used it to improve her project. Her presentation this year was amazing and I’m so proud of how she has improved. We will definitely be hearing more from her in the future!”

Hosted by the University of South Carolina and sponsored by the Department of Defense, the JSHS seeks to “widen the pool of trained talent prepared to conduct research and development vital to our nation.” The JSHS accomplishes this overall goal by giving talented students the opportunity to present their original, STEM-related research findings in a competitive, public forum.

Mei’s recent win qualifies her to participate in the 61<sup>st</sup> National Symposium in Virginia Beach, where she will compete against 244 other students.