

Your name: Matthew Casertano
Your institution: Montgomery Blair High School



1. Tell us a little bit about yourself, including what you are studying.
I am from Rockville, Maryland, and am currently a rising junior in the Montgomery Blair High School STEM Magnet program. As such, my education focuses largely on STEM, although in accordance with state/national requirements for high school graduation I am studying English, History, etc. as well. My interests are primarily in mathematics, computer science, and finance, but when I am not exploring one of these fields, I enjoy playing tennis, biking, and photography. I also avidly volunteer in my community, most recently having started an organization called “Teens Helping Seniors” during the COVID-19 pandemic. Through this, I have mobilized over 650 volunteers to provide nearly 2000 contactless deliveries of groceries, medication, and other necessities to senior citizens across the U.S. and Canada. The last major endeavor I am involved in is an investment banking internship under Mr. Joseph Miro, a Senior Financial Advisor at Wells Fargo. In this internship, I have been researching and analyzing stocks and ETFs to recommend investments and form portfolios for nearly two years.
2. Where did your internship take place, and who did you work with?
Due to the COVID-19 pandemic, my internship was completely remote and so it took place online. I worked with Dr. David Fushman of the University of Maryland (my internship host) and Mr. Emre Brookes of the University of Montana. We had group meetings several times per week and exchanged email correspondence multiple times per day.
3. What are some things that you learned as a result of this internship?
I spent the majority of my internship writing code, primarily in Python, and so definitely improved my skills significantly in this language. This applies especially to the Python modules that we were using, many of which I had limited experience in working with before (e.g. Plotly). In addition, I learned how to use Git for version control which will allow for easy collaboration in my future programming projects. However, I would say the most important thing that I learned was the importance of keeping my code organized. If I had documented and formatted my code correctly from the start, I would have saved a lot of time that I later spent trying to understand the code that I previously wrote.

4. Do you see yourself engaging with SGCI again in the future? Perhaps when you begin your career?

I definitely would be interested in engaging with SGCI again in the future. I am a big fan of the concept of a science gateway because it allows programmers and scientists to efficiently collaborate. Each person is able to contribute according to their strengths and weaknesses, almost like an assembly line. Furthermore, I believe that SGCI also has provided great opportunities for me to network and share experiences with people of similar interests, something that will be especially valuable as I prepare to enter college and eventually the workforce.

5. Anything else to add about your internship experience?

I very much enjoyed and benefited from this engaging and challenging internship experience. I would like to thank Dr. David Fushman for hosting/mentoring me, Mr. Emre Brookes for collaborating with me, and Mr. Jeff Wood for coordinating with me.