What do cutting edge research, state-of-the-art laboratory facilities and unparalleled access to professional scientists and engineers have in common? The AEOP High School Internship. Spend your summer in a university research lab or in one of the U.S. Army Research Laboratories and Centers through this unique internship opportunity. You will experience firsthand the innovation and research that is driving the future of our country. Do something meaningful this summer to prepare you for competitive college admissions and the next step in your STEM journey. Submit your application today for a chance to participate in the AEOP Internship Program. The impacts of this transformative experience will last a lifetime.

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Students will have to create an account on the Ideal Logic website.

This is what is available in Georgia:

Georgia Tech (High School - Atlanta, GA)
Students will manufacture and characterize origami structures. Students will also use origami simulation software (origamisimulator.org allows students to take data very quickly, while MERLIN and software developed within the group permit more specialized simulations). Students will also be exposed to the analytic theories and given chances to contribute to them.

In the event of an excess of qualified candidates, selection will be made based on 1) degree to which students are positioned to benefit from the training and 2) developing a diverse range of backgrounds and skills to effectively contribute to the project.

Georgia Tech (Undergraduate - Atlanta, GA)
Students will manufacture and characterize origami structures. Students will also use origami simulation software (origamisimulator.org allows students to take data very quickly, while MERLIN and software developed within the group permit more specialized simulations). Students will also be exposed to the analytic theories and given chances to contribute to them.

Kennesaw State University (High School - Marietta, GA)
Interns will conduct research in the mathematical sciences related to fractals. They will develop new numerical methods to solve certain differential equations on fractals and see the connection between the differential equations and the scattering of electromagnetic waves by fractal structures. They will get to visualize the simulations they produce in the state-of-the-art Immersive Visualization Environment research supercluster lab, consisting of a dome shape display with a 5-meter diameter and 210-degree horizontal field of view. Students will also be exposed to other relevant scientific skills for competitive entry into STEM programs and careers, such as developing an effective research poster and delivering an engaging scientific presentation

The minimum GPA requirement will be 3.0 and prior programming experience will be preferred but not required. The transcripts will be evaluated based on the number and percentage of STEM courses
taken as an indicator of STEM interest. One letter of recommendation will be required for each student.

Kennesaw State University (High School - Kennesaw, GA/Project 2)

For the high school student, participation in this project will ignite their interest in STEM (Science, Technology, Engineering, and Mathematics) by providing an immersive introduction to high-level scientific research and engineering practices. Working alongside experienced researchers and an undergraduate mentor, the high school student will gain foundational knowledge in both the theoretical and practical aspects of data collection, sensor technology, and VR environments. This exposure will not only enhance their understanding of STEM concepts but also inspire confidence in their ability to contribute to complex projects, thus encouraging them to pursue higher education and careers in STEM fields. The collaborative nature of the project also fosters essential soft skills such as teamwork, problem-solving, and critical thinking, which are crucial for academic and professional success.

PI will interview interested students and select candidates with relevant skills and willingness to learn.

Kennesaw State University (Undergraduate - Kennesaw, GA/Project 2)
For the undergraduate engineering student, this project provides a unique opportunity to develop hands-on expertise in cutting-edge technologies, such as EEG, ECG, and eye-tracking systems, alongside real-time data processing frameworks like Apache Kafka. The experience gained from integrating complex hardware systems, conducting rigorous calibrations, and ensuring precise data synchronization will significantly enhance their technical skill set, preparing them for careers in fields such as biomedical engineering, data science, and human-computer interaction. Furthermore, the practical knowledge of how to design and manage sophisticated experiments will strengthen their ability to undertake independent research, potentially leading to opportunities for advanced study or innovation in their future professional endeavors.

PI will interview interested students and select candidates with relevant skills and willingness to learn.