Olivia J. Clark

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Graduation Date: May 17th, 2024

Academic Summary

Oak Ridge High School (9-12)

G.P.A. (Grades 9-11): 4.2 (weighted); 3.778/4.000 (unweighted)

Class Rank: Top 20%

Highest ACT Composite Score: 31 ; ACT Superscore: 33

Advanced Placement (AP) Courses: US Government & Politics, English Literature, Seminar, Calculus AB, Statistics, Physics 1, Physics 2, Physics C (Mechanics), Physics C (E&M)

Honors Courses: English (9, 10, 11), Spanish (1, 2, 3), 2-D Art, Algebra 1, Algebra 2/Trig., Geometry, Precalculus, Biology, Chemistry

Tentative Career Interest: Physics research, teaching, and/or communication

Related-field Interests: Physics, mathematics, computer science, and engineering

Additional Educational Experience

Governor's School for Computational Physics:

I got the opportunity to spend 3 weeks at APSU where I learned various skills related to fields of my interest. I received 3 college credit hours for computational science and engineering along with 1 lab credit hour. There, I was introduced to programming in Linux and Fortran along with computational approximation methods, graphing software, machine learning, and higher-level math courses, all of which were synthesized under the subject of computational physics.

Computational Astrophysics at UTK:

After my experience at Governor's School, I wanted to maintain the momentum of my summer learning into the school year. I was able to contact Professor Mike Guidry at UTK and arrange for participation in his research group for computational astrophysics. This entailed of mentorships with graduate and undergraduate students in fields related to my interests as well as access to resources to accelerate my independent learning. Here I was able to both continue to practice and apply the skills I learned at Gov. School as well as gain an introduction to programming physical simulations in C++, MATLAB, and Python. I learned to further develop

my math skills, develop software, work on cutting-edge problems in computational astrophysics at a university level, and further my understanding of the scientific publishing process.

School, Community, and Leadership Activities

Club Participation:

- SOUP (physics) Club
- Philosophy Club
- Art Club

School Activities/Service:

- Tutoring
- Aiding/WBL Program
- UTED

Community Service:

- CVTA
- NMA
- Oak Ridge Girls' Club
- Willow Ridge Garden Center