

Brandon Walters

4520 Mattox Crossing Ct
Powhatan, VA, 23139

(804)-822-1545
brandon.walters@live.longwood.edu

Education

Longwood University <i>BS in Mathematics with Honors, Minor in Computer Science (Expected May, 2023)</i>	August, 2019 – Present Farmville, VA
Powhatan High School <i>Advanced Studies Diploma</i>	September, 2015 – June, 2019 Powhatan, VA

Research Experience

Surface Areas of Equifacetal Polytopes Inscribed in the Unit Sphere <i>Longwood University</i>	May, 2022 – July, 2022 Farmville, VA
--	---

- This focused on the problem of placing seven or eight points on the unit sphere S^2 in R^3 so that the surface area of the convex hull of the points is maximized. In each case, the solution is given for convex hulls with congruent isosceles or congruent equilateral triangular facets.
- Published by the Involve Journal of Mathematics
- The final research paper PDF: <https://arxiv.org/pdf/2212.12778.pdf>

Work Experience

Math and Computer Science Tutor <i>Longwood University Quantitative Reasoning Center</i>	August, 2021 – Present Farmville, VA
--	---

- Providing tutoring to Longwood University students in mathematical and computer science topics including enhancing their understanding of homework and other related assignments.
- Gaining experience in explaining mathematical and computer science concepts in ways that can be understood by someone with less experience in the subjects.
- Working as a team member with other tutors to best explain topics and to maximize the strengths of each team member to provide a positive learning experience.

Math Instructor <i>Mathnasium Math Tutoring Center</i>	July, 2018 – September 2019 March, 2020 – August, 2021 Midlothian, VA
--	--

- Gained experience in effective methods of instruction and education.
- Helped students of all ages to improve their understanding and abilities in different math topics.
- Learned valuable team building skills and improving with forming strong relationships with coworkers.
- Facilitated online classes using online distance learning software and in-person classes.

Research Presentations

Maximum surface area monohedra with 8 vertices in the Unit Sphere, National Conference of Undergraduate Research, April 13-15, 2023

Maximum surface area monohedra with 8 vertices in the Unit Sphere, West Virginia University Summer Undergraduate Research Symposium, July 28, 2022

Maximum surface area monohedra with 8 vertices on the Unit Sphere, James Madison University Shenandoah Undergraduate Mathematics and Statistics Conference, October 29, 2022

Awards & Honors

Dean's List

Longwood University

Fall 2019 | Spring 2020 | Fall 2020 | Spring 2021 | Spring 2022

Member

Cormier Honors College

2019 – Present

Member

International Honor Society for the Computing and Information Disciplines

2022 – Present

Member

The National Honor Society for First-Year Success

2020 – Present

Lancer Achievement Award

Longwood University

Fall 2019 – Present

Elmore/Royall Scholarship

Longwood University

Fall 2019 – Present

Powhatan Leadership Institute Scholarship

Powhatan Leadership Institute

Fall 2019 | Spring 2020

Specialized Skills/Activities

Programming Languages: C++ (Advanced), Python (intermediate), R (Advanced), LaTeX (Intermediate)

Technical Skills: Microsoft Office (Advanced)

Leadership: Powhatan Leadership Institute (2019)

Service: Alpha Phi Omega Service Fraternity (2021)