Anthony Doll

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EDUCATION

University of Virginia   Charlottesville, VA
B.A. in Mathematics (Graduate preparatory track)   May 2026
Distinguished Major Program
Graduate-level Coursework: Algebra 1 & 2, Algebraic Topology 1, Lie Algebras, Homotopy Theory,
Homological Algebra

RESEARCH EXPERIENCE

University of Virginia   Charlottesville, VA
Research Experience for Undergraduates (REU), Participant   Jun. 2024 – Aug. 2024
- Collaborated with 3 undergraduates on "Nonorientable surfaces and their curve complexes"
- Completed an intensive two-week module of lectures in algebraic and geometric topology (fundamental groups, category theory, and knot theory)
- Met every day for 5-6 hours for 8 weeks devising strategies to solve problem related to curve complexes of nonorientable surfaces

Independent Study   Aug. 2024 – May 2025
- Investigated higher homotopy groups and discussed material with supervisor Professor J.D. Quigley

Research Project   Jan. 2024 – May 2024
- Investigated free groups and group presentations under the supervision of Professor Peter Abramenko

Directed Reading Program (DRP), Participant   Jan. 2023 – May 2023
- Paired with post-doctorate fellow in mathematics to work on semester-long mathematics project
- Discussed Dehn functions and Cayley graphs in hour long weekly meetings throughout semester
- Showcased learned material in presentation to demonstrate mathematical maturity

TEACHING EXPERIENCE

University of Virginia   Charlottesville, VA
Grader   Aug. 2024 – May 2025
- Oversaw all grading of homework for Discrete Mathematics and Introduction to Abstract Algebra

Teacher's Assistant for Applied Physics 2   Jan. 2023 – May 2023
- Oversaw grading of a class of 120 students in a pilot course
- Tutored students privately outside of class to cover material not understood in class

PAPERS

- *A Brief Survey of the Curve Complexes of Non-orientable Surfaces of Low Complexity* with Olivia Hu, Ethan Li, and Shea Murphy. Preprint.

PRESENTATIONS

- *The Steenrod Algebra and Its Dual*, lecture for Homotopy Theory course   Dec. 2025
- *Curve Complexes of Non-orientable Surfaces of Low Complexity*, REU presentation   Jul. 2024
- *Geometry of Groups*, DRP presentation   Aug. 2023

LEADERSHIP & OUTREACH

- Peer Financial Counseling   Jan. 2024 – Present
- University Salsa Club Executive Board   Aug. 2023 – Present

PROFESSIONAL EXPERIENCE

Teach For America   Charlottesville, VA
Ignite Fellow   Aug. 2025 – Present
- Instructed 3 students virtually in program for underserved students below grade level in math
- Created lesson plans 4 days a week exploring topics from 3rd to 6th grade math
- Met with Ignite Site Leader and Ignite Partner quarterly and went over lesson plans and students' performances to improve teaching strategies