

Matthew Baumiller

– 2025 | Mathematics & AYA Math Education
Double Major

Data Exploration & Communication

Why I Joined the Data Exploration & Communication Pathway

I chose the Data Exploration and Communication Pathway as a replacement for the Statistical Data Science Minor. I had a lot of peers in a variety of pathways programs and told me about the wonderful opportunities presented.

Pairing this with my Mathematics and Education Majors was a no-brainer. As an educator, especially in mathematics, it is your job to take complex data and information and put it into a way that is understandable to the audience. With my intention of finding an internship anyways for the summer of 2023, having the ability to think more critically about my experience, and how I collect information to then explain and display to others was very helpful to me.



My Experiential Learning Opportunities & What I Gained

High School Mathematics Curriculum and Instruction Intern

With National Heritage Academies, the Curriculum and Instruction (C&I) team is focused on aligning all content taught in the academic year with the appropriate state standards based on location, as well as ensuring it follows the overall mission of NHA. Especially in the summer, C&I is adjusting their curriculum to align with new standards in different states their schools are present in, but also taking the information straight from the teachers, and adjusting all lessons, assessments, and workbooks. Creating, and editing all the lesson plans, assessments, and materials for the teachers allows more time for the teachers to enhance the classroom experience and ensure the best education for all students.

Final Thoughts:

How My Pathway Has Shaped My Career Path

With this internship, I was able to see a different side of education, one that is focused on training and preparing teachers, but also designing Curriculum. There are so many more levels to education besides teaching a lesson in the classroom, and I grew even more appreciative of that process, even considering this field of work, should I step away from teaching.

I believe that how NHA does its work, taking the information from people at the heart of the action, and hearing what works and does not work allows for constant improvement in these school systems.

Additionally, working to relay the information we gather to a wide variety of audiences is also important. With such crucial data, I worked on describing this to educators, deans of school districts, but also my fellow interns, many of whom had no experience in education, other than being a student.



My Pathway Courses & How They've Impacted my Data Exploration and Communication

MATH 10200 – Introduction to Statistics

This focused on the fundamental principles of both calculating statistical information, but also being fluent in reading and understanding statistics

DATA 10600 – Introduction to Data Science

This class heavily focused on taking larger data sets and creating visualizations with the information, but in a way that is understandable to all.

MATH 22300 – Graph Theory & Combinatorics

This course created a different perspective of thinking and taught new skills for understanding complex relationships and patterns that can be found in data.

PHIL 22000 – Logic and Philosophy

This class tackled linguistics as well as the structure of sentences and arguments, with the emphasis on clarity, and understanding for the audience.

THANK YOU

Hannah Anglebrandt and all the interns for a welcoming community, even as a virtual intern. Thank you to my supervisor, Sara Spear, and the rest of the Math C&I team for all their help, and guidance, showing me another very important part of the education field, that sets teachers up for success.

