



Walter John Malec III

Senior Consultant for Personal
Insurance Claim Analytics Team

The Travelers Companies

BA - Mathematics, WSU, '13

MS - Applied and Computational
Mathematics, UMASS Lowell,
2015

Ever since I was in the 8th grade I always wanted to be a teacher. In my freshmen year I decided I wanted to be a High School Special Education Teacher. Growing up I was in special education because I am dyslexic. So this decision was a no brainer. I really didn't put much thought into choosing my major but being in special education seemed like the right thing to do.

Math has always been something that I understood, but prior to my freshman year at Westfield I never even considered majoring in math. That was before I met Professor Hotchkiss. My first 2 math courses I took were Math Foundations: Patterns, Reasoning and Algebra and Math Foundations: Geometry. Both were taught by him. I learned a lot about how to teach math in many different ways. I felt the urge to not only learn how to teach math but to learn more advanced math. Professor Hotchkiss suggested that I switch to being a math and secondary education major. After, thinking about it and talking to my education advisor, I took his advice to switch. That's when I started my journey to where I am today.

Sophomore year was very exciting! I took Calculus I and II, Linear Algebra, and Discrete Structures! That year would lay the foundation of many things I'd learn about mathematics and about myself! I was involved with Math Club. I always felt like I needed to challenge myself while taking math courses - a feeling that I really hadn't felt in my other classes I took at Westfield. Mathematics became a passion of mine and I am fortunate to have found it when I was at college. I am fortunate to have had professors who truly were passionate about math but also passionate about the success of their students. Being a part of the Westfield math department felt like one big family, which added to my success.

Junior year was when I got into the meat and potatoes of my major course work - which made me push myself even more to learn what I could with my limited time at Westfield! This year I also become best friends with two of my peers who were also math majors. I am a firm believer that you need to immerse yourself with peers who are smarter than you in their own way. You can learn a lot from your peers as well as they can learn a lot from you. This was the year when I started giving undergraduate presentations at math conferences. Giving presentations was a great opportunity to learn more about a given field of mathematics!

Senior year began and I was so excited to start student teaching and get my teaching license! In the fall semester of that year I was enrolled 3 classes that questioned whether I wanted to go to graduate school instead of starting to teach the next fall. The classes were Senior Seminar, Modern Geometries and Applied Statistics. These classes made me want to learn even more about mathematics. I reasoned that as a teacher I would need my masters anyways, so getting it out of the way first wouldn't hurt. I applied to UMASS Lowell to study Applied and Computational Mathematics. Student teaching began for me that spring. I was still so excited because I got to teach math. It was an amazing experience! I taught 2 Algebra I classes and an Advanced Geometry class. One thing that was really astonishing was that I learned so much from my students. During student teaching I was accepted to UMASS Lowell's graduate program. I was looking forward to the advanced materials I'd learn in grad school.

I had privilege to be a Teaching Assistant at UMASS Lowell. During my time at UMASS Lowell I took many different course that covered many diverse fields of mathematics. I strongly suggest to take a diverse set of classes as well as take courses that you know will challenge you. I took abstract algebra as well as real analysis and these classes were challenging for me. I worked so hard in these classes and it paid off. I also suggest to take courses with material that may come easy to you, but with the caveat push your limits and learn material that goes beyond the course requirements. Success doesn't come with luck, it comes with hard work.

I am currently in a three-year leadership development program for advanced analytics at The Travelers Companies. My current role is support of the actuarial pricing team. I maintain and update an auto loss trend decomposition tool called STEM (Short Term Explainability Model). The goal is to help regional actuarial and state market analyst understand our current trends to give detail on which segments and states to take rate in. The thing I find the most interesting about my work is the data. I am fortunate to have access to big datasets that have millions and millions of rows to explore. There are so many stories the data can tell how Travelers' different books of business are doing. Dealing with unstructured data is very interesting to me. Tweets, Facebook posts, Instagram photos and emails are examples of unstructured data. How to create a structure for it and get meaningful information from it is a challenge. A lot of the work I do is exploring new internal and external data sources. Even for internal data sources there can be a lot of challenges. Data at some points is still manually imputed which can cause data quality issues. Part of my job is to clean and prep data, so that when we create predictive and explanatory models we won't get misleading results. My company uses a variety of different programing languages to solve our business problems. The open source data science community is very motivated to help everyone learn ground breaking algorithms to solve a variety of problems. As programming languages used for data science I prefer Python. But in the big picture of things all programing languages have their pros and cons. I am currently in the process of rotating to another role at the Travelers. There are a lot of interesting opportunities in the insurance industry that use problem solving and analytic thinking. I never would have thought I'd enjoy working in the insurance industry. I am very motivated to work hard and do my best. Always strive to make anywhere you go a better place!

My last piece of advice for success is to remember these 3 things:

- Be humble
- Word hard
- Be kind