



## Profiles in Computing

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### Education:

Master of Science in Mathematics, Georgia Institute of Technology  
Bachelor of Arts (mathematics), Greenville College

### Advice to students:

Never be afraid to try something new. Opportunities don't always just "appear", sometimes you have to make them happen. Joining a professional society in whatever field you choose will help you create those opportunities!



### **Q: Please describe your path to becoming the computing professional you are today.**

**A:** I loved math and numbers from birth, I think; I remember, maybe in kindergarten, being given a 3rd grade math workbook as a birthday present, and thinking it was the best present ever! During my elementary thru high school years, computers were becoming a bigger part of society. As I started college as a math major, it was a natural thing for me to include computer classes; I ended up with a minor in computer science. Those classes were a big selling point on my resume, and as I began my career, computers were integral to everything I did. Now, after many years in my field, my reliance on computing has expanded. High-performance computing hardware and software is essential to the system and software development and testing I do.

### **Q: What is your major or job, and why do you love it?**

**A:** My major was mathematics; my job title is currently "Senior Research Scientist". I enjoy the fact that I have varying responsibilities throughout each day. The focus of my research has also changed over time. It's good to have a wide variety of experiences to draw upon. I also like the opportunities I have here to help others; I serve as the Chair of the GTRI Awards Council, helping others get the recognition they deserve for their work.

### **Q: Please describe 24 hours in your typical day as a computing professional.**

**A:** My day begins getting my kids off to school, driving to work thru the wonderful Atlanta traffic, then I start my day at work reviewing all the emails that came in overnight. Throughout the day, I manage programs, write proposals, design experiments to test software, run those experiments (sometimes in millions of runs), and assess the results. I write papers and presentations based on my assessments. I try to keep up with emails throughout the day, and at the end of each day I leave myself a list of things that need to be done the next day.

**Q: Please describe a computing-related work project of which you are most proud.**

**A:** I began and completed my Master's Degree while a full-time employee at GTRI. As part of my Master's Degree program, I took some courses in Fractal Geometry. At that time, researchers were just beginning to explore the many ways that fractal geometry techniques could be applied to real-world applications. Before I graduated, I had to perform and present the results of a research project to the math department. I decided to integrate my work in radar systems with my new understanding of fractal geometry. At the time, I was investigating innovative, automated techniques for deciding what a radar had "seen", based on the returned radar signature. For my project, I chose to use the Fractal Dimension of the returned signature as a new technique. I tested this technique using measured radar data. The technique was successful, and I was subsequently able to turn that initial research into several funded contracts.

**Q: What are your hobbies/ interests/ passions beyond working in computing?**

**A:** I spend a lot of my free time participating in and volunteering for IEEE activities. I also love to sing, and sing in the Praise Band at my church. I'm an obsessive reader, often reading 4-5 books/ week.