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My responsibilities are a combination of research, teaching, and service, and there is not a clear separation between these three things.



For my research on the one hand I explore the properties of a newly developed mathematical object called diversities that are an extension of the idea of metric spaces. On the other hand I work with linguists and psychologists to use mathematics to understand how humans perform cognitive tasks.

Teaching is another big part of my job. I teach classes in mathematics ranging from the first year level to the graduate level. But I also count working with students at all levels on research projects to be teaching, even though it does not occur in the classroom.

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education

I was born in Vancouver and spent my whole childhood there. I was interested in math from elementary school. I really liked it because it was something I could make progress on just by studying on my own. After high school I went to do a degree in combined mathematics and physics at Simon Fraser. During summers I worked at TRIUMF, a physics lab on UBC campus. I gravitated to doing computer simulations. When I finished at SFU and went to grad school I entered a program called Scientific Computing—Computational Mathematics at Stanford.

Service is the part of my job where I can give back to the institutions and the society that have helped me so much. This involves doing things that allow the university to function smoothly and achieve its mission. It involves making sure that people who do good work are rewarded for it. And it involves making sure that the work we do here has the best chance of affecting the world outside the university, often by giving public lectures or doing activities with school children.

When I was in high school and undergrad school I was active in very many things, both scientific and artistic. I acted, I sang, I made videos with my friends, I played guitar. When I went to grad school I decided that I had to put that stuff away and focus on just math. I think that was a big mistake. Really, there are only so many hours in a day that you can do productive mathematics, and in the rest you should try to have fun doing something else. I only recently understood this, and I've started painting. I take classes at an Arts centre in Burnaby. I'm surprised at how delightful I find it.