# PERSONAL STATEMENT

JIANQING JIA

My fascination with mathematics has been the driving force behind my academic and professional journey. This passion led me to pursue an undergraduate degree in Mathematics at Hebei Normal University, a place renowned for its dedication to education and teacher training. It was there that I first experienced the profound satisfaction of unraveling mathematical puzzles and sharing these discoveries with others. Being fascinated with using mathematical models to solve practical problems, I was recommended to take a master's in Computational Mathematics. Having gone through those years of professional academic training on combining mathematics and computer science and eager to delve deeper into the world of mathematics and education, I am now pursuing my Ph.D. at Syracuse University, where I have had the privilege of both learning and teaching mathematics at a higher level.

My commitment to academia is twofold: I am deeply invested in both my research and my role as a teacher. My research interests have recently centered on nonconvex optimization and algorithm design, where I've engaged in collaborative efforts with my advisor and peers to address complex problems rooted in real-world scenarios, such as compressed sensing. Along this journey, I have contributed to four publications, with two additional works nearing completion. The process of submitting papers, along with my participation in academic conferences and seminars, has been pivotal to my development. It has instilled in me a profound appreciation for the delicate interplay between theoretical inquiry and practical application, enriching my growth as a scholar in applied mathematics.

Teaching has always been the beacon of my academic voyage, illuminating both my passion for mathematics and my dedication to education. Over a span of 13 years, from my initial steps as a trainee teacher to my current role instructing calculus and statistics courses at Syracuse University, my journey has been characterized by a relentless pursuit of pedagogical excellence and student engagement. My teaching philosophy is anchored in the belief that education transcends the mere transmission of knowledge; it is about inspiring curiosity, fostering critical thinking, and empowering students to explore the vast landscapes of mathematics with confidence and creativity. In my classes, I employ a variety of innovative teaching methodologies designed to meet the diverse needs of students. I integrate technology to enhance learning, use real-world examples to make abstract concepts tangible, and encourage collaborative problem-solving to build a community of learners who support and inspire each other. My commitment to accessibility and inclusivity ensures that every student feels valued and has the opportunity to succeed, regardless of their background or learning style.

Feedback from students and colleagues alike has affirmed the effectiveness of my approach, highlighting my ability to demystify complex mathematical theories and instill a love for learning that extends beyond the classroom. My efforts to continually refine my teaching strategies are fueled by the belief that teaching excellence lies in the details – the extra office hour, the tailored feedback, the encouragement when a student struggles, and the joy in their success.

I am honored to be considered for the Outstanding TA Award, a recognition that signifies not just my commitment to teaching and research, but also the impact I hope to have on my students' academic and personal growth. My experiences at Syracuse University have been invaluable, providing me with opportunities to develop as an educator, researcher, and member of the academic community. I am deeply thankful for these opportunities and for the support and feedback I have received from my students and colleagues, which have been instrumental in my ongoing development as a teacher. As I look forward to a career in academia, I am committed to continuing my journey of learning, teaching, and making meaningful contributions to the field of mathematics.