

I was the father bragging about his quarterback son, I made sure anybody who would sit still for two minutes saw my Tetris game play itself. That was the very first time I built an artificial intelligence system, but to this day I can still remember the enthusiasm I had for building something *smart*. This enthusiasm has infused my life, driving my professional experiences and personal projects, and inspiring my goal of challenging myself to create machine learning applications which solve difficult new problems.

One of my greatest assets is having developed a strong software development skill set as a professional software engineer. In a small group within Sun Microsystems I was thrown head first into the fast paced world of software development, learning quickly which programming techniques are most important to get work done, how to juggle multiple important projects, and how to use criticism to effectively improve the design of applications. Graduate research is closer to the professional environment than to the undergraduate environment where problems are fitted to the lesson being taught, and I excelled in the professional environment. My manager often told recent graduates, "In *theory*, there is no difference between *theory* and *practice*. In *practice*, there is!", I found this to be true and feel my professional experience is an indispensable part of my education. Besides gaining the real world experience of how quality software is actually made, my time in the professional arena has also allowed me to focus, mature, and renew my passion for learning.

This passion is evident in the personal projects I have undertaken apart from professional work. I researched various computer science topics of interest, including network programming, data mining, and social intelligence, and applied this research to a large project, www.CriticComrade.com. Choosing to create this challenging website allowed me to gain experience applying academic algorithms in a real world situation. Inspired by this success, I looked forward to new opportunities; however, I increasingly found that the most interesting problems are the most complex, and this increasing complexity requires more education. As a step in this direction I took the graduate level Data Mining course at CSM, and not only excelled but also verified a graduate education from this institution is the best course of action to fulfill my goals.

The challenge of applying machine learning to real world problems has inspired me to push myself professionally and personally. I am confident my experiences show I am qualified and well prepared to excel at the Master of Science program in Mathematical and Computer Sciences at the Colorado School of Mines.