Stephen Krenzel Statement of Purpose

I was five years old when I wrote my first line of source code. Little did I know how it would alter the the course of my life. At the time it was nothing but an amusement. To be quite honest, I had little idea why the code did what it did but this early introduction to programming would later prove to be a great advantage. As I progressed through school and was introduced to new mathematical concepts, such as variables or summations, I could always relate it back to programming while my peers often struggled with understanding what was going on.

I have always been an avid learner and my skill set continuously reinforced a great interest in academia. In high school I would often read books such as Wolfram's "A New Kind of Science" or Gott's "Time Travel in Einstein's Universe" simply to learn more about topics that I knew my teachers would never touch. By my junior year of high school I was asked to attend the select Pennsylvania Governor's School, a summer program of intense learning in a college setting for a field that you've proven to be above average in.

Once I got to college I continued challenging myself in new ways. In my early college career, I made certain to choose courses that would put me out of my comfort zone. Whether or not the grades from those courses were having a positive impact on my GPA was of little significance, I was learning about things that I knew nothing about and I found that very exciting.

My degree at Drexel was a five year program. Excluding my freshman and senior years, every other six months were dedicated to an internship. This was enticing because it mixed academia with the "real-world". I've always felt that too many engineers see these choices as mutually exclusive, when in fact neither would be a competent discipline without the other. I desire to keep this mix of academia and industry in my life. This is why I'm undertaking graduate work.

I had a variety of internships during college and always maintained a connection to academia. While working at the Princeton Plasma Physics Laboratory, I would often attend guest lectures being given at Princeton. When working at Google, I made acquaintances with professors at Stanford and sat in on lecture series being given. One such series, "Statistical Aspects of Data Mining", was a terribly interesting topic and everything I learned from it was immediately applicable to the work I was doing at Google.

A Masters in Systems Engineering is of interest to me because it focuses on integrating complex systems together that cross multiple disciplines of engineering. Everyday as an ELDP at Lockheed Martin I work on components from a wide array of disciplines that have been brought together to build extremely complex defense systems. The skills that a Masters of Systems Engineering teaches and the problems it addresses are directly applicable to the problems I am challenged by every single day.

Professor Linda Nozick stated that "At Cornell, Systems Engineering is about the real world - the complicated and messy real world... You also learn the unwritten rules. That everything connects to everything. That every choice has a ripple effect...". This is exactly what I have been looking for in a masters program and Cornell delivers it. The Cornell Masters of Systems Engineering program directly applies academic insights to industry guided problems. The impression left by Peter Jackson, the Director of the Systems Engineering program, when he visited Moorestown gave me every confidence that Cornell understands the needs of industry and has a solid program together to address them.

I am certain that I will be a great fit in the Cornell Masters of Systems Engineering program. My experiences across many different fields will contribute to the classroom discussions and will provide unique perspectives on the problems that we will be challenged with. It will be a fun and interesting experience as I learn from world-class faculty. I am a very motivated self-learner and am looking forward to the constant stream of challenges that this program will offer me. I only hope that you are just as excited to give me the challenge.