



Howie Hollander Software/Systems Engineer



I was a Senior Software/Systems Engineering Manager in the aerospace and defense industry. Now I do a lot of STEM outreach and advocacy.

How long were you a Senior Software/Systems Engineering Manager?

My career was 37 years long when I retired in 2011.

Where did you work?

The last 29 years of my career were with the Lockheed Martin Corporation. Previously I had worked for GTE Sylvania (acquired by General Dynamics) and The Boeing Company.

How did you spend most of your time at work?

As a manager, my days were filled with all kinds of stuff, none of which were engineering specific. I did personnel and program management, budgeting, scheduling, etc., with days filled with meetings and calls, writing reports, and other administrative tasks.

My engineering days were much more exciting, following the engineering process of first analyzing and breaking down requirements, architecting and designing software systems, developing and testing software, integrating the software elements together, and testing the system prior to deployment. Even then, the job continues with maintenance of the software, upgrades to the software, and, eventually, the retirement of the software.

Why did you choose this career?

In some ways the career chose me! I had finished a Bachelor of Engineering degree in electrical engineering with plans to design computer hardware. I accepted a co-op job as a software engineer while I was in graduate school, and fell in love with the field.

What did you do to prepare for this career?

I have a BE degree in electrical engineering, and an MS in engineering management with a concentration in computer and information systems. Other than my initial grad school co-op assignment, I had no other applicable work experiences prior to starting my career. I began programming computers in high school. That's no big deal now, but when I graduated high school in 1969, we were told the specialized science and math high school I attended was the only one in the US that had a computer!

What did you enjoy most about your job?

I enjoy the creative process of engineering, taking nothing more than a bunch of requirements and assumptions to create something that has never been done before.

What do you find most challenging about your job?

The aerospace and defense industry often involves large scale systems that typically take years to develop. As a result, you often find yourself making predictions of what the state-of-the-art will be in the future, not what you can utilize today. Those predictions may not be available, or possible, when you need it.



What was one of your first jobs and how did that experience influence your career path?

I worked at many of the same kinds of jobs teenagers still do today, including summer camp counselor and lifeguard, department store stock and sales, and even delivered meat for the local butcher when I was around 13 years old. Back in the mid-1960s, I would typically get a nickel or dime for a tip, but recall once getting a quarter! If I knew how, I might have done cartwheels all the way back to the butcher shop (FYI, minimum wage back then was \$1.25 per hour).

However, the one job that influenced my career was working in a local factory while I was in school earning my engineering degree. The work, for me, was hard and sweaty, repetitive and mindless, and otherwise not at all what I wanted to do for a lifetime. It only lasted a week, until the entire second shift crew was let go, but it convinced me to work hard in school so that I never again had to work in that kind of environment again.

What is one piece of advice you would give to a young person who is interested in your profession?

Be flexible! I assumed I was going to be an electrical engineer, and instead, I never worked a day in that field.



HOWIE'S FUN FACT

I grew up wanting to be an astronaut. Though I have met astronauts who went to space, I applied three times unsuccessfully. The closest I came was when my children sent me to "Space Camp" in Huntsville AL for a birthday present!

