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**Degree: When, where, what, and what in?**

I received my bachelor's and master's degrees from MIT in aeronautical and astronautical engineering in 1986 and 1988, respectively. As I was supported by a full Air Force ROTC scholarship, no job hunting was necessary after finishing school—I immediately entered the Air Force officer corps. After only two years, I had an opportunity to leave the service and work for private industry, where I took advantage of my company's supportive continuing education program. While continuing to work, I pursued and obtained a master's degree from the University of California, San Diego, in electrical engineering. After moving back to Massachusetts, but continuing to work for the same company, my proximity to the Woods Hole Oceanographic Institution, along with a desire to advance professionally, allowed me to drop back to part-time work status and pursue a PhD in electrical and ocean engineering from the Massachusetts Institute of Technology/ Woods Hole Oceanographic Institution Joint Program. I received my doctorate in June 2000.

**Did you stay in academia at all, and if so, for how long?**

I actually never had an interest in academia except for advancing my education. I fully intended to work either in the government or private sector as an engineer. In fact, I worked before, during, and after my doctoral work for Science Applications International Corporation (SAIC). My decisions to

pursue a second master's degree and, eventually, a doctoral degree were not premeditated. Neither decision felt necessary for my job or financial well-being. Each was undertaken as an avenue toward personal satisfaction as I realized I could achieve them without serious disruption to my professional career.

**How did you go about searching for a job outside of the university setting?**

After receiving my MIT master's degree and fulfilling the ROTC obligation, I began a classic job search by reading newspaper ads in the Southern California area. My job at SAIC began in June 1990 as a result of answering a newspaper ad and interviewing with an MIT alumnus. In retrospect, I was extremely fortunate to begin such a satisfying career with such a simplistic approach to job hunting.

**Is this the only job (post-academia) that you've had? If not, what else did you do?**

Aside from my brief tenure with the Air Force, my employment with SAIC has been continuous, although I did revert to part-time status for several years as I was finishing my doctoral thesis.

**What is your current job? What path did you take to get there?**

The common university connection with the MIT alumnus during my SAIC interview was critical for establishing his confidence that I could do what the job demanded. Since then, I have spent the last 20 years as a signal processor and modeler of electromagnetic and



underwater acoustic phenomena. While my work has primarily been for the US government, there have been brief commercialization forays. Some example projects include high-capacity underwater acoustic communications (the topic of my Joint Program doctoral thesis), development of foliage penetrating radars, geolocation of wireless transmitters in urban environments, and innovative satellite communication architectures. My Joint Program years were in the midst of this career. As my research was closely related to my professional work, I continue to work with colleagues at WHOI and elsewhere while living in Falmouth, MA.

**What did your oceanographic education (or academic career) give you that is useful in your current job?**

My training and research in the field of communication through the challenging underwater acoustic environment was both directly relevant to continued private sector contracts with the US government and indirectly invaluable as a firm foundation in the overall field of signal processing. My relationship with advisors and other professors formed the basis for professional collaborations after graduation,

including having them consult on my programs. Relationships that academics have with private industry are an invaluable tool for an imminently graduating student to exploit. Employers trust these consultants' advice about who to hire.

### Is the job satisfying? What aspects of the job do you like best/least?

As my 20-year affiliation with SAIC suggests, I have found the diverse and challenging projects that I win, lead, and execute satisfying and enjoyable. In particular, much of my work follows the model of conceiving an idea, evaluating it in simulation, and conducting feasibility experiments that lead to delivery of a product over a one- to two-year cycle. With two or three such projects ongoing at any time, the combination of diversity and accomplishment is professionally gratifying. I suspect this is in stark contrast to academic work that typically has longer time lines and seldom reaches clear conclusions. My academic and professional experience enables me to essentially define my own work.

### Do you have any recommendations for new grads looking for jobs?

The professors, scientific staff, and alumni contacts that you have as a result of your education are your absolute best resource for finding and winning a satisfying job. Do not hesitate to reach out to all of them. Often times, a job will be created for the right person who comes with the right recommendation.