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CITATION

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CAREER PROFILES Options and Insights

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

Initially, I was 100% science-focused, earning a BS degree in zoology from Texas A&M University (1996) and a PhD in marine biology from Scripps Institution of Oceanography, University of California, San Diego (2002). I then steered off course and landed in law school at Boalt Hall, School of Law, University of California, Berkeley. I earned a JD in 2005, with a certificate of specialization in environmental law.

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

I abandoned academia when I graduated from Scripps. However, through an interesting turn of events, I find myself back at my oceanography alma mater where I now spend part of my time teaching ocean law and policy to future oceanographers and to other graduate students.

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

Law school was my approach to an alternative career.

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

I have the perfect job...or jobs, and I still find myself marveling at how I managed to achieve it. My primary job is as an attorney and as the director of the Ocean Program at the

Environmental Law Institute—an environmental law and policy research and education organization based in Washington, DC. I also work with the Scripps Institution of Oceanography Center for Marine Biodiversity and Conservation where I teach ocean law and policy and coordinate a summer graduate course in marine biodiversity, conservation, and global change.

Knowing in graduate school that lab work was no longer my passion, I began to mull over two things: (1) making money and (2) making a difference. I decided that my best bet to achieve one or both of these things was to get a law degree where I could explore my passion—conservation—and, alternatively, develop the skills I needed to make the big bucks. In the end, I walked away from a six-figure job offer and took a coveted position as a law fellow at the Environmental Law Institute (ELI). During my year as a fellow there, I worked with institute staff to develop ELI's first Ocean Program. I stayed on after my fellowship to direct the program.

My next move was both personally and professionally motivated. While I loved Washington, DC, I missed the ocean, the science, and my partner—all of which were waiting for me at Scripps. When I graduated from Scripps in 2002, the Center for Marine Biodiversity was just getting started. When I returned in 2006, it was thriving, but also in need of a law and policy expert. Today,



I continue to use my dual advanced degrees to bring together ocean law and policy and the science that supports it.

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

My science PhD has been an enormous asset at every step of the way. Simply having it helps open doors. More importantly, the skills I developed as a graduate student are essential ones that I still depend upon, especially the independent analysis and problem-solving skills. My substantive scientific knowledge is the foundation upon which I work as an attorney. Science-based management is central to my current research, and having a scientific background helps enormously in understanding the challenges and potential solutions to ocean and coastal conservation and management.

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

I love my career. The best part about it is that I get paid to do something that is fun and exciting and has the possibility of influencing how conservation decisions are made.

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

When I was torn between doing something I liked and making a lot of money, or doing something I loved and making

quite a bit less, I asked my law school advisor what he thought I should do. He gave me a somewhat exasperated look and asked, “What do you **want** to do?” With that, my choice was clear. I wanted

to spend my life doing what I could to help preserve and protect the ocean. My suggestion to new grads students is to answer that question and go for it. 📌

LOREN SHURE | MathWorks, Natick, Massachusetts, loren.shure@mathworks.com

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

I received my degree in marine geophysics from Scripps Institution of Oceanography, University of California, San Diego, in 1982. My graduate work focused on understanding Earth’s magnetic field, from both large- and small-scale perspectives. I developed some modeling techniques for understanding the data, which included exciting new data sets such as those from NASA’s MAGSAT spacecraft. Though I mostly did theoretical and computer work, I spent several months at sea on research expeditions to see what it was like to collect all kinds of data in the marine environment, including magnetic field measurements, and to learn about the associated hardships. Plus, I love to travel!

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

After receiving my PhD, I was a postdoc and on the staff of Woods Hole Oceanographic Institution (WHOI) for three years, with an adjunct appointment at Massachusetts Institute of Technology. I thoroughly enjoyed most of the teaching aspects of the job that I took on, especially working with the students.

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

When I chose to leave WHOI, it was partly because I found out something important about myself. I am profoundly a city person for day-to-day living! I also decided I wanted to be in the Boston area, at least for a while. I found a headhunter who helped me find a job. That was the hottest way to move in those days. I’m not sure I would proceed that way if I were looking now.

For my first job, I took a graphics programming job at a database company. Though challenging, it was not exercising the math/science part of my brain to the extent I wanted.

Through kismet, the right opportunity presented itself when I was spending time with a geophysics friend of mine. Her brother has recently moved back east to grow his company, MathWorks. Jack and I happened to meet informally, and a few weeks later he showed me MATLAB. Eventually, he made me an offer that I accepted. I knew that even if that startup didn’t work out, the market was quite rich with opportunity.

One thing I figured out sort of early on is that I really like investing in making tools that help me and others to

be more productive. That’s why I fit in so well at MathWorks and why, almost 24 years later, I am still here.

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

In the beginning at MathWorks, I did anything that needed to be done, including such diverse activities as performing technical support, writing documentation, and presenting at meetings, in addition to designing and writing code, developing tests, and creating examples. I worked first a little bit on MATLAB, including numerical algorithms and helping to design some new language features. I then started working on various toolboxes, add-on software for applications such as signal processing, statistics, image processing, and the like. I’ve been co-author of the first version of quite a few products over the years.

Eventually, I settled into my current role, which is quite diverse



and makes good use of my knowledge and talents. I still participate in the design of the MATLAB language and other new features we want to add for our customers. Given my tenure at MathWorks and my historical perspective, I often get involved in projects where we want to trace the history of some development. I work closely with sales folks, particularly, but not only, those selling to academia, and help them to support large accounts. This facet of my role frequently means visiting customers (getting in some nice travel venues occasionally), hearing their issues (and helping, I hope!), and showing them how they can make better use of the products we make for their applications. Finally, one very public thing I do is write a blog with relevant technical information for our users (<http://blogs.mathworks.com/loren>).

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

I learned two main skills in academia that have served me well throughout my career. The first is nurturing general problem-solving skills, and the second is honing good communication skills. Being open to many different solutions and angles of approach has helped me broaden my viewpoint and develop my network, allowing me to draw upon ideas and people to which I might have otherwise not been exposed.

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

I enjoy lots of aspects of my job, especially all my interactions with customers. I get immense satisfaction seeing them have success, in part because of using tools I helped to build. Because I have been at MathWorks from near the

beginning, it has been both satisfying, and sometimes frustrating, to experience the company's growing pains. But that is also a nice problem to have in many ways. We are still in business and still helping our customers succeed.

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

I believe most of the big problems we encounter these days require interdisciplinary input, so be sure to surround yourself with a variety of smart people. Most of us with jobs today did NOT specifically train for those jobs when we were in school. So, get a great background and be sure to set yourself up for being available and open for opportunities that may come your way. They may not look like jobs you have thought of, so you have to be really careful to be open enough to recognize that you have a choice you hadn't imagined. ☒

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