

Do's and Don'ts for your Statement of Interest/Statement of Purpose

*Thanks to Rob Toonen, Hawaii Institute of Marine Biology, University of Hawaii
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Do:

- Explain something about yourself, your self-discipline, time management skills, motivation, and drive for seeking a graduate degree in your field.
- Mention scientific accomplishments that you are particularly proud of and why. Try to explain to the committee how you evaluate yourself in terms of accomplishments and productivity.
- Try to present a clear and well-thought-out idea of who you are and what you would like to do in graduate school.
 - Briefly introduce a general problem of interest to you (why would anyone care?), and then get to the specific area of your interest.
 - Explain what you would like to accomplish with regard to resolving some open question. BUT don't come across as dogmatic, or claim that you're going to solve any of the world's problems! (see DON'Ts below)
- **IMPORTANT: Specifically mention any faculty members that you would like to work with, and whether you have contacted them about the possibility of working in his or her lab.**
- Explain why you think that lab or graduate program is a great place and would be a good fit for what you are looking for from your graduate education – i.e., what are the specific reasons that you are applying to THIS program as opposed to any other?
- Explain what your ultimate career goal is (e.g., a GIS analyst, resource manager, faculty position at a major research university, etc.).

Don't:

- Take more than a couple of pages to make your point. Admissions committees have to read a couple hundred of these things, and the statements that make a compelling case for acceptance in 1-2 pages are MUCH more successful than ones that ramble for 5 pages (and are never read to the end because they are too long!). On the other hand, don't shoot off a statement that is only 1 or 2 paragraphs long either!
- Have any typos, spelling mistakes or missing punctuation. Like it or not, writing is an essential part of being a successful scientist, and a poorly written statement is **always** a red flag to admissions committees!
- Try to be cutesy and tell nice stories about how your love of squirrels and dolphins as a child has led you to want to save the world. This is a career path that you are trying to pursue, and attempts at being overly cute or humorous are almost always considered unprofessional.
- Claim that you'll solve some global problem. Individuals can only ever do a small part by ourselves, and although we can each advance knowledge about the natural world, we're just not going to solve some burning problem by ourselves in grad school. If it were that simple, someone would have probably done it already!
- Appear to be too set in your ways. You want to convey an interest in an area and show that you've given it some serious thought, but not come across as dogmatic or stubborn (if you can, communicate to your prospective adviser about a possible project, and describe that in your statement).
- Say anything negative about anyone or anywhere else. No one wants to hear you put down the program or advisers at another college (even if they agree with you), and being negative simply belittles your application.

STATEMENT OF INTEREST/STATEMENT OF PURPOSE

Example from a successful M.S. applicant

How does the underwater world connect to the land that we know so well? What happens beyond the coastline in order for it to function as such a tremendous boundary between our terrestrial home and the deep sea? I would like to grasp these concepts in such a way that I can share the ideas and visualizations with anyone.

I feel that Oregon State University, as a known research university, is a place where I can gain the knowledge and experience needed to accomplish my goal of integrating GIS and ocean research. My thoughts for furthering my education are best said in the words of Sylvia Earle at the 1999 ESRI User Conference. She is quoted in an excerpt from *ArcUser* magazine: "In the last decade, improvements in GIS tools have provided a quantum leap in our ability to understand and manage marine ecosystems. Foremost among these new tools is three-dimensional GIS data modeling. Now suddenly I can see so much as never before in context. It's that kind of 'ah-ha' breakthrough that these new integrating data systems allow. I can't wait to see what's going to happen as we begin to work together."

I became interested in marine and coastal studies during a project with the Center for Coastal Studies at Texas A&M University-Corpus Christi. As an undergraduate research assistant, I developed a pilot project for riparian assessment, primarily using ArcView 3.2 and Image Analyst. By studying land use distribution and flow analysis, I determined watershed boundaries and queried riparian habitat classified from TM imagery along the major drainage areas within the five coastal counties of the Texas Coastal Bend. My paper, "Using ArcView GIS in Assessing and Preserving and/or Restoring Riparian Habitat," was published in the 2000 ESRI User Conference Proceedings. In the summer of 2000, shortly after leaving my position in coastal studies, I went to the University of Washington as an intern for OUREarth, a NASA Space Grant program. My experience with the Department of Oceanography was invaluable. Under the direction of Dr. Miles Logsdon, I used Arc/INFO to delineate the Columbia River watershed. It took some historical research and the collection of several data sets to complete the tasks needed for an ongoing project for the Pacific Northwest Climate Impacts Group. The scope of their project amazed me. To model the entire ecosystem within the Columbia River watershed is so extensive. For the first time, I understood how powerful GIS is for environmental research and visualization.

Since graduating with a B.S. in geographic information science, I have felt a strong desire to choose a specialized field. For the last year, my position as GIS specialist at Digital Mapping Services (DMS), a GIS company in Corpus Christi, Texas, has been ideal for exploring my options. I have used ArcGIS 8.1, All Topo Maps, Orthophotos, Adobe Acrobat, MS Access, and other software on a Windows workstation for most of the projects at DMS. Most of the projects involve oil-and-gas well and pipeline locations, with some significant work in locating camera locations for the U.S. Border Patrol on the Texas/Mexico border. In considering marine and coastal studies, my desire to pursue a career in the field was strengthened when I participated in a hydrographic survey. While spending time on the Corpus Christi Bay recording sonar images and magnetometer

readings, I found satisfaction in this type of fieldwork. I continued by processing and analyzing the sonar imagery in Seascan Review and ArcScene to distinguish anomalies. This is the job that confirmed my passion to be on the water and also to show the client what the bay floor “looks like.” The power of mapping and three-dimensional visualization is unlimited.

I look forward to earning my Master of Science in Geography with the understanding that I am still leaving my options open in a broad field. For this reason, I have researched some of the opportunities at OSU. My desire is to be part of research that will narrow the scope of my degree without disregarding the immense world of ocean GIS. Ideally, I would like my graduate research to incorporate the preservation of marine sanctuaries around the South Pacific islands. I understand the Dr. Dawn Wright has done significant research around American Samoa. Her work history and current pursuits for more opportunities through grants are impressive. Dr. Wright actually had a great influence on my decision to apply to OSU, and I would like to request that you consider me as a graduate research assistant under her direction. Her enthusiastic response to my inquiry about the program via electronic mail made my decision to apply more concrete. Furthermore, because of the good reports that I have found about OSU, I am excited to be part of the Geography program in any case. I hope you will give my application a sincere consideration.

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STATEMENT OF INTEREST/STATEMENT OF PURPOSE

Example from a successful Ph.D. applicant

I am writing to express my interest in pursuing the Ph.D. in geography in the Department of Geosciences. I am excited by the prospect of performing research and broadening my knowledge of geographic information science, and I believe I would make an excellent doctoral candidate. Professor Dawn Wright and I have discussed the Ph.D. program, and she has agreed to serve as my major professor should I be accepted.

I am passionate about geography, GIS, digital cartography, and ecology, and have worked with GIS software, spatial data, and related technologies since the early 1990s. After completing a double major for my BS in Biology and Environmental Studies, I began doing basic GIS analysis for the National Park Service Research Unit at Yosemite National Park using GRASS. Later I moved to Arc/INFO and ArcGIS in subsequent positions, while performing more complicated analyses and data manipulation. I put together an integrated minor with a concentration in GIS and statistics for my Master degree in Botany and Plant Pathology at OSU, where my research involved predictive modeling of the suitable habitat for a lichen species in the Oregon Coast Range, using multivariate statistics and advanced GIS raster algebra techniques. During that time I completed multiple, graduate-level courses in GIS and cartography through the Department of Geosciences, and spent a great deal of time doing self-directed research into GIS and methods of spatial data analysis, particularly with raster datasets. In 1999, I was selected to serve as an ESRI Student Assistant, which paid my way to the annual ESRI GIS User Conference, where I presented my research and won second place in the “Most Analytical” category of the Map Gallery competition.

My research interests include spatial data structures, spatial databases, and the use of open-source software tools in devising more efficient methods for the manipulation, display, and analysis of complicated spatial data. My prior academic background has focused on biology and plant ecology, where I maintain an active interest. I am particularly interested in researching new methods for linking spatial databases (e.g., stored in PostgreSQL/PostGIS) with other, distributed ecological and sensor databases and datasets, and developing tools that allow the user to perform complicated spatial analysis through a standard web browser. Together with recent advances in the use of Open Geospatial Consortium (OGC) standards for the sharing of spatial data, as well as nascent technologies such as the semantic Web, I believe there exists great promise for this type of distributed yet integrated approach to data discovery and analysis. Given my interests and experience, after speaking with Dr. Julia Jones, I believe I may also be a good candidate for the Ecosystem Informatics minor.

I am currently employed on the OSU campus with a research group, the Northwest Alliance for Computational Science and Engineering, where I hold the titles of GIS Coordinator and Web Development Engineer. I am responsible for managing all projects that include GIS analysis or application development, and oversee the efforts of several full-time employees, graduate students, and undergraduate students. In 2002, I began experimenting with open-source GIS software as a solution to some of the more

challenging data conversion and application development problems faced in our grant proposals. These software programs (MapServer, PostgreSQL/PostGIS, PROJ.4, GDAL, OGR, etc.) gave me a platform for developing tools that allow users to browse, query, and interact with highly-complicated and resource-intensive spatial data via a Web browser. I have given presentations on my work to a broad range of audiences: nationally at various conferences and to groups such as the LTER, NBII, and USFS, and locally to the Mid-Willamette Valley GIS Users Group and various research groups and classes at OSU. Additionally, I have authored or co-authored several publications in peer-reviewed journals.

Although I have been involved with the grant writing process many times, and have served as co-PI on a few grants, I am not in a position to direct research or serve as PI on large research projects such as those for which we've received NSF funding. I want to pursue a Ph.D. not only because I would like to actively pursue grant opportunities and direct research at a higher level, but also because I know I would benefit personally from the increased depth and breadth of knowledge and experience I would gain from the process. After earning the Ph.D. I would like to either continue in a high-level research position or work in academia as a professor. I would love to advise students and teach courses in spatial technology, natural resources, or a combination of the two.

Thank you for considering my application.

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