Data Research Scientist
Position Announcement

Are you interested in the intersection of ocean science and policy and want to be part of building solutions for current and future ocean issues? If so, the Stanford Center for Ocean Solutions, an initiative of the Stanford Woods Institute for the Environment, invites you to apply as a Data Scientist to enhance our research capacity within our portfolio of collaborative projects.

The Stanford Center for Ocean Solutions (COS) catalyzes research innovation and action to improve the health of the oceans for the people who depend on them the most. COS capitalizes on Stanford’s broad expertise in ocean science and in the many other disciplines crucial to developing ocean solutions including engineering, computer science, political science, design and business. Our core team of researchers and fellows partner with other research institutions, national and international non-governmental organizations, businesses and governments, as well as established and emerging leaders in the data revolution.

Cheaper, faster and more ubiquitous ways of collecting and sharing data coupled with powerful tools to translate streams of data into understanding enable new approaches to solving environmental problems. We see great potential in utilizing these advances to enable new solutions for the oceans. Our interest in the data revolution includes: (1) new sources of data, such as nano-satellites, drones, social media, and citizen science; (2) new capabilities for managing data and integrating diverse data streams; (3) new tools, such as machine learning, for extracting information from data; and (4) innovations such as data visualization that use these new data and computational capabilities to create useful applications.

Position Summary
The Data Research Scientist (DS) will be responsible for actively engaging in scientific research as part of COS’ key initiatives including: Oceans & Food, Sustainable Ocean Economies, Small-scale Fisheries & Technology, Managing Ocean Risk, and Curbing Illegal Fishing. We seek a creative individual with experience in a relevant ecological or oceanographic discipline (e.g., marine ecology, biophysical oceanography, spatial analysis & modeling) with a focal interest in application of emerging technology and data sciences towards addressing ocean issues. Consistent with the mission of COS, we seek a person with experience and/or interest in both advancing scientific frontiers and addressing real-world challenges of sustainability in coastal and ocean environments.

COS strives to nurture diversity and is committed to including a diversity of people and organizations in our work to develop robust solutions to ocean challenges. We aim to make our projects inclusive, to engage diverse perspectives, and to equitably represent those whom our solutions affect.

Required Qualifications
• Ph.D. in marine science, computer science, or a domain related to environmental sustainability or oceans that included significant quantitative work in data science
• Fluency in R, Python, or other programming languages relevant for mapping, statistical, and visualization packages
• Excellent statistical skills including Bayesian approaches
• A “self-starter” mentality, with the ability to work independently and as a member of a team
• Strong data visualization and data management skills including the ability to manage servers and data sets across different platforms
• Strong teamwork skills and ability to work effectively with colleagues at many levels, as well as work successfully with a variety of faculty and researchers in connecting across ecological and social science disciplines, enhancing project ideas, and embedding science and technology in management and policy
• At least two years’ work experience that includes experience using data science approaches to solve social and/or environmental sustainability issues, and, ideally, ocean issues
Preferred Qualifications

- At least three years of professional work experience in leading applied technical work
- Proficiency in GIS and spatial analyses
- Demonstrated task management experience as well as strong written and verbal communications skills, strong networking and relationship-building skills
- Fluency in database management and data mining (SQL)
- Experience in 3D modeling and visualization
- Demonstrated ability to analyze systems and solve complex technical problems using spatial analytic methods
- Experience in environmental data analysis/interpretation using statistical methods and/or modeling
- Strong networks in the tech sector and beyond, and a talent for building connections

Job Description & Duties

The primary responsibility of the Data Research Scientist is to lead and oversee project-level data analysis and synthesis. This includes: in-depth quantitative research, advanced statistical analyses, data processing, and machine learning as necessary.

Other tasks include:

- Contribute research and analyses to COS’ current projects, working with other research staff (COS’ Research Associates & Early Career Fellows), Stanford faculty and students, as well as investigators from collaborating institutions
- Research and analyze the landscape of innovative technology approaches being used by other initiatives to solve ocean and other environmental challenges (e.g., academia, startups, established companies, government programs, NGOs) to ensure COS’s work complements and enhances existing efforts
- Identify, explore, and assess IT-enabled innovations that could materially contribute to specific COS initiatives
- Identify and develop promising partnerships with researchers and innovators in the tech sector
- Identify potential collaborators within Stanford, in computer science and other departments

Hours, Location, and Compensation

This is a full-time, fixed-term position for one year, and will be renewed annually based on performance and programming needs. The Data Research Scientist will be based at either our Palo Alto office at Stanford University or our Monterey office at Hopkins Marine Station. The salary and benefits are competitive within the field and are based on candidate experience.

To Apply: To be considered, interested candidates will provide a cover letter, resume, and contact information for references to Stanford Careers website, job identification number 82676, at [http://stanfordcareers.stanford.edu/](http://stanfordcareers.stanford.edu/)

Deadline: Applications will be reviewed on a rolling basis beginning on May 1st. The position will remain open until filled.

A background check will be required for all final candidates.

Stanford is an equal opportunity employer and all qualified applicants will receive consideration without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, veteran status, or any other characteristic protected by law.

Job: Academic Staff-Research
Location: Dean of Research, Stanford Woods Institute for the Environment
Schedule: Full-time
Exemption: Exempt
Grade R99
Job Code: 6438