

Research Data Analyst 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 Research Data Analyst 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 Stanford Center for Ocean Solutions is seeking a Research Data Analyst (RDA) to support work on the Supply Chain Risk Tool Project. The RDA will use and analyze vessel data from Automatic Identification System (AIS) transmissions and complete analyses to illuminate risks of illegal, unreported, and unregulated (IUU) fishing in seafood supply chains. The Research Data Analyst will work closely with the project lead, Dr. Alfredo Giron, and the IUU research team, coordinated by Dr. Elizabeth Selig. This work will contribute to an ongoing partnership between COS, Global Fishing Watch, FishWise, and the Friends of Ocean Action, where COS contributes scientific and technical expertise. The project also includes collaborations with industry actors. This position requires a strong interest in the development of data-driven solutions to inform decision-making.

Minimum Qualifications

- Bachelor's degree or a combination of education and relevant experience. Experience in a quantitative discipline such as computer sciences, data sciences, or statistics.
- Fluency in relational query languages, such as SQL
- Fluency in general programming languages, such as Python and R, and version control software (git/GitHub)
- Demonstrated experience in statistics and data visualization

Desired Qualifications

- Experience in coding, data analysis and interpretation. Experience in understanding and using fisheries data.
- Familiarity with Google Cloud Platform (VM, BigQuery, Storage)
- Experience or ability to process and analyze big data
- Familiarity with data pipeline apps, such Apache Airflow and Apache Beam

Job Description & Duties

The primary responsibility of the Research Data Analyst is to manage and analyze large amounts of information, typically technical or scientific in nature, under the direction of project researchers, investigators, or managers.

These duties include:

- Collaborate with faculty and research staff on data collection and analysis methods to use AIS transmission data to estimate vessel activity, indicators of illegal fishing risk, and merge with other non-vessel specific datasets
- Develop statistical models for understanding the relationships between IUU fishing indicators and vessel behavior; use key datasets, detect outliers, and explore how they are associated to risks of illegal, unreported, and unregulated fishing activities as defined by the research team
- Develop reports, charts, graphs and tables for publications, presentations, and use by research team
- Share bi-monthly feedback on the use of the databases to partners

Hours, Location, and Compensation

This recruitment is for one (1) full time (100% FTE), 1-year fixed term position. Extension beyond the first year will be based on available funding and operational need. This position will be based at the Center for Ocean Solutions office at Stanford University (Palo Alto). Some work can be done remotely, yet an essential function of the position is to be available for intermittent in-person or virtual meetings. The in-person, remote, or hybrid work distinctions will follow Stanford University's [current guidance](#). The salary and benefits are competitive within the field and are based on candidate experience.

This position includes the following physical requirements:¹

- Sitting in place at computer for long periods of time with extensive keyboarding/dexterity.
- Occasionally use a telephone.

To Apply: To be considered, interested candidates will provide a cover letter, resume, and contact information for references to Stanford Careers website, requisition identification number 95652, at
<http://stanfordcareers.stanford.edu/>

Deadline: Applications will be reviewed on a rolling basis beginning on August 29, 2022. 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.

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.

¹ Consistent with its obligations under the law, the University will provide reasonable accommodation to any employee with a disability who requires accommodation to perform the essential functions of the job.