

### MERIDIAN (UBC, Vancouver, BC, Canada)

**POSITION SUMMARY:** The MERIDIAN (Marine Environmental Research Infrastructure for Data Integration and Application Network) Consortium is developing a research data infrastructure to support the analysis of acoustic ocean data alongside a wealth of other datasets (social, economic, etc.). The goal is to promote evidence-based decision-making on key ocean issues, including for instance finding a balance between economic activity and marine protected areas. The MERIDIAN infrastructure will be a widely used resource for the Canadian and international community and is expected to drive innovation in data discovery, data sharing, data integration and data interoperability, as well as interactive data visualization and data analysis. As part of this initiative MERIDIAN is seeking a Data Analytics and Visualization Expert. The Data Analytics and Visualization Expert shall be technically knowledgeable, organized, solution oriented, creative and resourceful and be able to manage rapidly changing work priorities, work deadline oriented and communicate efficiently.

**Requirements:** The key responsibilities for this position will include

1. Develop algorithmic and data structure solutions for MERIDIAN's interactive visualizations of the information contained in the ocean data sets in conjunction with data contained in other public datasets. These visualizations ideally combine information synergistically with natural language (text or speech), where the natural language narratives can signify and explain key points about the data, by focusing particularly on specific geo-locational, temporal, causal and evaluative aspects.
2. Engage end-users/decision-makers in refining decision scenarios (e.g. for the uses of existing or planned Marine Protected Areas) and related information needs to inform the design of proposed solutions.
3. Work closely with the Core Scientific Team member (G. Carenini - UBC) on the development of the infrastructure's data visualization functionality for decision support.
4. Develop and maintain technical process and procedure documentation and report on an on-going basis to the Lead PI for Interactive Data Visualization and Communication (F. Popowich – SFU)

**Qualifications:** The ideal candidate will have the following qualifications and experiences

1. A graduate degree in Computer Sciences, Mathematics, Physics, Engineering (or commensurate experience) with experience in data analysis, data manipulation and interpretation, data mining, data visualization, natural language processing (NLP), machine learning, and relational database management systems such as PostgreSQL.
2. Experience designing interactive visualization techniques is essential. Knowledge of JavaScript and various open-source technologies (e.g. d3) and popular commercial tools (e.g. Tableau) for visualization will be of significant advantage. Similarly, experience with tools and technologies for NLP will be of significant advantage.
3. Experience designing decision-support systems would be desirable.
4. Experience working with oceanographic, acoustic and/or environmental data would also be desirable.

If interested, please send inquiries and CV to [carenini@cs.ubc.ca](mailto:carenini@cs.ubc.ca)