PEA Job Description

1. Position Identification

<table>
<thead>
<tr>
<th>Position Number</th>
<th>991988</th>
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<tbody>
<tr>
<td>Position Title:</td>
<td>Data Services Specialist</td>
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<tr>
<td>Department:</td>
<td>Ocean Networks Canada</td>
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<td>Reports to:</td>
<td>Data Manager</td>
</tr>
<tr>
<td>Number of Direct/Indirect Reports</td>
<td>Direct 0    Indirect 0</td>
</tr>
<tr>
<td>Classification Level</td>
<td>SG 9</td>
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<tr>
<td>Last Updated</td>
<td>October/2018</td>
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2. Position Summary

Ocean Networks Canada (ONC) is a world-leading organization supporting ocean discovery and technological innovation. ONC is a not-for-profit society that operates and manages innovative cabled observatories on behalf of the University of Victoria that supply continuous power and Internet connectivity to various scientific instruments located in coastal, deep-ocean, and Arctic environments. ONC’s cable arrays host hundreds of sensors distributed in, on and above the seabed along with mobile and land based assets. These strategically located instruments address key scientific and policy issues (subsea earthquakes and tsunamis, ocean acidification, marine biodiversity, etc.) within a wide range of environments. Data are hosted in ONC’s Oceans 2.0 data management system and made available for free to users around the world.

As part of the Data Team, the Data Services Specialist will work across the organization with the CANARIE-funded Dashboard project team to assist in the requirements, design, and development of the Oceans 2.0 Dashboards, which will allow users to build custom webpages based on Oceans 2.0 data. The Dashboards will rely on the Oceans 2.0 Application Programming Interface (API), which provides a fully-documented, easy to use programmatic interface for accessing ONC’s data archive, metadata and advanced data products. The Data Services Specialist’s principal roles in the Dashboard project will be to complete Dashboard research, design and prototyping, provide coordination for user interactions, prototype widgets for the Dashboards, and create documentation as well as administer the project. The Data Services Specialist will work with a dedicated project team and stakeholders to meet deliverable deadlines as set by CANARIE and the project manager. In addition, the Data Services Specialist will assist the Data Team with internal use of the Dashboards, user support for the Dashboards and API, and other related tasks.

3. Key Responsibilities and Expectations

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<th>Key Responsibilities.</th>
<th>Expectations:</th>
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<td>% of time</td>
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| Dashboards research, design requirements, and prototyping 40% | ● Conducts a review of existing Dashboard options.  
● Compiles an inventory of existing ONC web services to establish Dashboard requirements.  
● Suggests and directs improvements to ONC’s Dashboard implementation to comply with review results. |
<table>
<thead>
<tr>
<th>Table 1</th>
<th>Requirements</th>
<th>Stakeholder Interaction 25%</th>
<th>Technical Writing 20%</th>
<th>Administrative Project Management 15%</th>
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| ● Provides requirements for software engineering team to implement the Dashboard framework.  
● Implements prototype Dashboard widgets, which display data in ways consistent with user requirements.  
● Recommends configuration of Dashboard widgets to meet user needs.  
● Researches and/or defines metrics to assess usage and performance of implemented Dashboards.  
● Performs user testing and verification of implemented Dashboard framework.  
● Makes recommendations for maintaining infrastructure to support new Dashboard widgets on an ongoing basis (e.g., new instrument types, new visualizations, new users).  
● Creates example webpages, which demonstrate the use of the Dashboards. | ● Gathers requirements and feedback from identified stakeholders to inform the design of the Oceans 2.0 Dashboards.  
● Assists with usability testing with identified participants.  
● Provides training and support to internal and external users of the Oceans 2.0 API and Oceans 2.0 Dashboards.  
● Informs stakeholders and users of project progress. | ● Authors and maintains ONC’s external documentation of Dashboards.  
● Contributes to and elaborates on ONC’s external documentation for web services.  
● Documents use cases for Oceans 2.0 Dashboards.  
● Documents user feedback throughout design, development and implementation phases of the project.  
● Creates handover documents. | ● Creates status reports for funders.  
● Reports progress to project manager.  
● Tracks time for all project-related tasks.  
● Prioritizes JIRA tickets for Agile sprints.  
● Acts as Product Owner for Agile project sprints. |

4. Classification Factors:

Problem-Solving:

● Effective analytical and problem solving skills are essential to this position.  
● Significant judgement levels are required in analyzing existing ONC technologies that are applicable. These decisions will greatly affect how ONC manages and implements future data access and availability as well as maintaining interoperability with other data warehouses.  
● Able to analyze stakeholder requirements and determine how a Dashboard can be built that can effectively satisfy most or all requirements.

Responsibility for Financial & Material resources:

● No responsibility for budget or materials expenditures. Has shared responsibility for the requirements, development of dashboards and administration of the Dashboard project.

Responsibility for Human Resources:

● Operates with minimal supervision from the Data Manager and is not expected to provide functional supervision to any staff.  
● Operates as product owner for the project Agile sprints, providing immediate and short-term priorities for developers and reporting on sprint progress to the project manager.
### Impact of Decisions and Actions:
- Interacts with project stakeholders including research and professional scientists at national and international educational institutions, government laboratories, and international partner institutions.
- Defines metrics to evaluate current web technology as well as to follow up with users during design and implementation of Oceans 2.0 Dashboards technology.
- Fulfills a mandate in the ONC Strategic Plan.
- Enables ONC to deliver data to other data portals and data harvesters thus improving worldwide exposure to ONC data.

### Independence:
- Has considerable independence and responsibility regarding the design and implementation of Dashboards.
- Independently responsible for researching current Dashboard technology and providing implementable solutions for the scientific community to be able to access ONC data.
- Independence in contacting and analyzing stakeholder requirements and determining how Dashboards can be built that effectively satisfy those requirements.

## 5. Summary of Qualifications:

The Data Services Specialist will have a Bachelor’s degree in Computer Science, Software Engineering, Physical Sciences or related fields with 2 years of experience. An equivalent combination of education and experience may be considered.

### Knowledge Requirements
- Knowledge and awareness of global web service standards
- Good understanding of relational databases

### Experience Requirements
- Direct experience in API and web service use
- Experience in designing and building web pages and web programming
- Experience writing requirements and use cases for software
- Proficient in programming in Matlab, Python and/or other languages
- Proficient at writing technical documentation
- Proven track record of achieving project goals on time and produce deliverables of a high quality
- Demonstrated administrative and organizational skills

### Competency Requirements
- Able to manage time effectively
- Ability to build and maintain productive working relationships with all stakeholders including researchers, industry representatives and internal staff.
- Excellent analytical, critical thinking and problem solving skills
- Superior communication skills, both written and verbal
- Ability to work independently and collaboratively in a team environment

### Assets
- Knowledge of Agile methodologies
- Knowledge of oceanography or geosciences and data warehouses
- Knowledge of scientific data formats/standards
- Project management experience
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<th>Employee’s Signature:</th>
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<tr>
<th>Manager’s/Supervisor’s Signature</th>
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