

Job Description Template

1. Position Identification	
Position Number	993718, 993686, 993494, 993393, 993365, 992680, 992679, 992678, 992677
Position Title:	Junior Software Developer
Department:	User Engagement, Ocean Networks Canada
Reports to:	Associate Director Software Engineering
Number of Direct/Indirect Reports	Direct <u>0</u> Indirect <u>0</u>
Classification Level	SG 6
Current Incumbent (if applicable)	

2. Position Summary
<p>Ocean Networks Canada (ONC) is a world-leading organization supporting ocean discovery and technological innovation. ONC is as 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 strategically located, instruments that address key scientific and policy issues (subsea earthquakes and tsunamis, ocean acidification, marine biodiversity, etc.) within a wide range of environments.</p> <p>ONC's User Engagement Division is responsible for supporting and growing ONC's scientific and research user communities through direct support for new and ongoing user research initiatives on the one hand, and education, development of data products and other web-based data access and visualization tools on the other.</p> <p>As part of the User Engagement Division, the Software Engineering group, under the guidance of its stakeholders delivers software that empowers users in accomplishing complex tasks, in dealing with data volumes of increasing size and complexity.</p> <p>The Junior Java Developer will participate in the design and implementation of software components aiming at processing and publishing data from Ocean Networks Canada (ONC) instruments and controlling these instruments or the observatory infrastructure. The Developer reports to the Associate Director Software Engineering, with work assigned on a project basis or in an area of continuing responsibility, which will be reviewed for progress toward the stated objectives.</p>

3. Key Responsibilities and Expectations		
Key Responsibilities	%of time	Expectations:
Software design and development (85%)		<ul style="list-style-type: none"> Design, code, and test new features and functionality based on requirements collected Review and understand business requirements as a participant in cross-functional teams Participate in design and code reviews Document work projects, including explanation of the development process, troubleshooting approaches and resolution of any bugs Develop test suites based on previous work project for software development and testing Ensure that effective code is completed within timeline provided and that issues are fully tested with minimal defects Maintain software and repair bugs

Department support and other duties (15%)	<ul style="list-style-type: none"> • Contribute to software development best practices • Assist with production support issues as they arise • Maintain other software such as mobile applications • Stays up to date with current and emerging technologies and programs for coding development and design processes • Presents on new technologies, programs and methodologies to software development team • Analyses research papers and ONC publications to understand the context in which ONC operate and the application of the data managed by the User Engagement group • Maintains other software such as mobile applications
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4. Classification Factors:

(a) Independence of action, authority and decision making

The Developer will exercise independent decision making with regard to their independent software design and development projects.

(b) Accountability – scope and impact

The Developer plays a key role in the success of the Digital Infrastructure department, which functions as a service delivery department to a broad, global user base. The position directly impacts the efficiency of the Digital Infrastructure department, and therefore impacts the ability of the department to achieve the strategic objectives of Ocean Networks Canada and to satisfy internal and external stakeholders.

(c) Supervision given and received

The Developer works very closely with others in the Digital Infrastructure department and his/her work will be reviewed for accuracy and quality assurance. However, the position performs standard and routine assignments independently to conclusions, and only unusual problems are referred to a supervisor or senior developer.

(d) Budget, Financial & Material resources

This position does not have responsibility for budget or materials expenditures, but has shared responsibility for design, implementation and maintenance of software components.

(e) Problem-Solving

Critical analysis and creative problem-solving are essential attributes of the Developer. The Developer is required to identify and solve design problems, including finding and repairing bugs. Innovative approaches may be required when traditional resolution methods have been exhausted.

5. Summary of qualifications:

The Junior Java Developer will have a college diploma in computer science and a minimum of 1 to 2 years of development experience in Java.

Experience:

- Proven ability to write design, build, test and debug software
- Demonstrated proficiency in the following technologies: J2EE, JavaScript, HTML, XML, SQL
- Experience in object-oriented design and implementation

Knowledge:

- Knowledge of relational database management systems such as Oracle or MySQL

Competencies:

- Knowledge of software lifecycle and Agile methodologies such as Scrum
- Knowledge of web services and service-oriented architectures

Competencies:

- Ability to work independently and proactively within a team-oriented environment

- Excellent written and verbal communication skills
- Excellent problem solving skills
- Ability to learn new technologies

Highly desired assets:

- Familiarity with the Eclipse development environment and with tools such as Velocity and Hibernate as would be some knowledge of the messaging system.
- UNIX skills
- Bash or other scripting language
- Experience installing and configuring software packages
- ActiveMQ troubleshooting/knowledge
- Experience in scientific data processing MATLAB, R, SciPy, data visualization, statistics, time series analysis, and analytical science in general.
- Test automation
- Familiar with JUnit testing

Date of Submission: April 17, 2013

Signature of Responsible Manager: