

## JOB DESCRIPTION

Job Title: Full-stack Developer

Work Unit: Oceanic Fisheries Programme (OFP)

Reporting to: Systems development manager

Responsible For: No direct reports

**Job Purpose:** The OFP is developing several cutting-edge web-based systems and mobile device tools to acquire data from Pacific tuna fisheries at sea and at points of offloading the catch. We are looking for a highly skilled computer analyst developer who is comfortable with both front and back-end programming as well as mobile application development. This position will report to the Systems Development Manager and working closely with the Senior Analyst Developer. Main responsibilities are

- Full-stack<sup>1</sup> development and maintenance of fisheries information and database management systems for both SPC and WCPFC member countries
- Development and maintenance of the OFP mobile application platform

Some in-country work is expected to be undertaken in collaboration with counterparts from the Pacific Islands Forum Fisheries Agency (FFA) and the Office of the Parties to the Nauru Arrangement (PNAO). The position is also required to be involved in other work conducted by the Data Management Section not mentioned above.

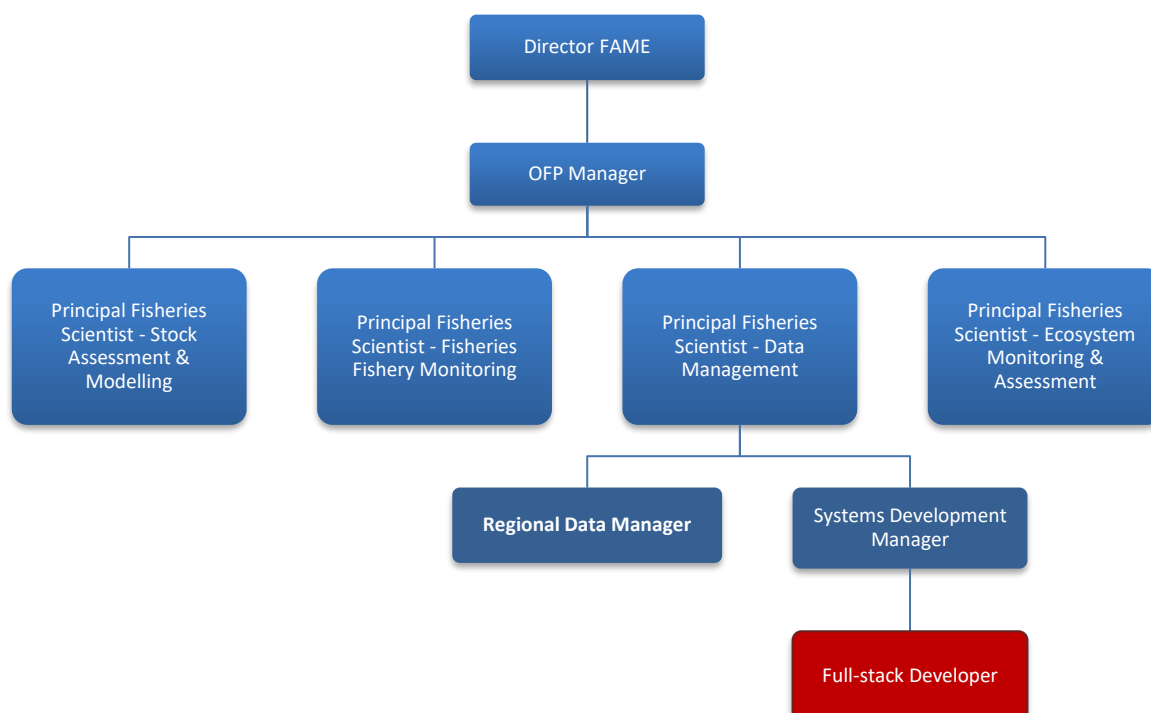
Date: January 2023

<sup>1</sup>

<[Link](#)>A full stack web developer is a person who can develop both client and server software. In addition to mastering HTML and CSS, he/she also knows how to:

- Program a browser (like using JavaScript, jQuery, Angular, or Vue)
- Program a server (like using PHP, ASP, Python, or Node)
- Program a database (like using SQL, SQLite, or MongoDB)

## Organisation Context and Organisation Chart:



## Key Result Areas:

The position of Full-Stack Developer encompasses the following major functions or Key Result Areas:

- Enhanced national database systems and reporting systems for member countries
- Enhanced capacity of member countries to manage and use data
- Data management and quality control of national and regional tuna fisheries databases

***The requirements in the above Key Result Areas are broadly identified below.***

Jobholder is accountable for	Jobholder is successful when
<b>1. OFP database management systems (10%)</b> <ul style="list-style-type: none"> <li>• Design, develop, document and maintain the regional tuna fisheries database systems for the registration, entry, importing and querying of data</li> <li>• Dissemination of OFP data and data summaries in accordance with the OFP policy on the dissemination of data, as requested</li> </ul>	<ul style="list-style-type: none"> <li>• Tuna fisheries database systems have been designed and developed in an efficient and timely manner and satisfy the requirements of the OFP</li> <li>• Tuna fisheries database systems are maintained on a regular basis and kept fully functional</li> <li>• Documentation of the structure and administrative procedures of the regional tuna fisheries database systems are updated to reflect new systems and changes to existing systems</li> <li>• Data analyses have been undertaken in a timely manner and data summaries have been disseminated in accordance with OFP policy in an efficient and timely manner</li> </ul>

<b>2. Fishery monitoring and data management support for SPC members (80%)</b> <ul style="list-style-type: none"> <li>Develop and maintain national fisheries database management systems, in particular, the TUFMAN2 tuna fisheries database management system</li> <li>Develop and maintain mobile applications to be used to collect tuna fisheries data</li> </ul>	<ul style="list-style-type: none"> <li>Tuna fisheries database systems (e.g. TUFMAN2, Mobile applications, MD2, VMS Pipe, etc) issues and features have been developed in an efficient and timely manner and satisfy the requirements of member countries, including their obligation as members of the WCPFC</li> <li>Tuna fisheries database systems are maintained on a regular basis and kept fully functional</li> </ul>
<b>3. Capacity building of SPC members (10%)</b> <ul style="list-style-type: none"> <li>Train national staff in the use of fisheries database management systems and mobile applications</li> <li>Support the countries in a timely manner</li> </ul>	<ul style="list-style-type: none"> <li>Contributions have been made to regional tuna data training workshops, when held</li> <li>Countries have appropriate support to any of their requests regarding applications or database systems</li> </ul>

The above performance standards are provided as a guide only. The precise performance measures for this position will need further discussion between the jobholder and supervisor as part of the performance development process.

### Most Challenging Duties Typically Undertaken (Complexity)

<ul style="list-style-type: none"> <li>Developing and maintaining modules of state-of-the-art fisheries database management systems</li> <li>Following technical specifications and delivering quality code</li> <li>Resolving complex IT issues with people who have no IT background.</li> </ul>
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### Functional Relationships & Relationship Skills:

Key internal and/or external contacts	Nature of the contact most typical
<b>External:</b> <ul style="list-style-type: none"> <li>National Tuna Data Coordinators, Pacific Island Countries</li> <li>FFA IT staff</li> <li>Scientists external to SPC</li> <li>Fishing industry</li> </ul>	<ul style="list-style-type: none"> <li>Training, provision of advice and support for the national tuna fishery database systems</li> <li>Liaison for the update of the WCPFC web site</li> <li>Response to ad hoc requests for data and data summaries</li> </ul>

<b>Internal:</b> <ul style="list-style-type: none"> <li>• OFP Principal Fisheries Scientist (Data Management)</li> <li>• OFP Senior Analyst/Developer</li> <li>• OFP Data Analyst/Trainer</li> <li>• OFP Regional Data Manager</li> <li>• Fisheries Monitoring Supervisor</li> <li>• Data Control Technicians</li> <li>• Other OFP Sections staff</li> </ul>	<ul style="list-style-type: none"> <li>• Performance appraisal, work planning, delegation of ad hoc requests for data and data summaries</li> <li>• Work planning, collaboration on the design and development of database management systems</li> <li>• Software development and maintenance Collaboration on the design of database modules and requests for data and data summaries</li> </ul>
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### Level of Delegation:

Routine Expenditure Budget: EUR 0.

Budget Sign off Authority without requiring approval from direct supervisor: EUR 0.

### Person Specification:

*This section is designed to capture the expertise required for the role at the 100% fully effective level. (This does not necessarily reflect what the current position holder has.) This may be a combination of knowledge / experience, qualifications or equivalent level of learning through experience or key skills, attributes or job specific competencies.*

### Qualifications

Essential:	Desirable:
<ul style="list-style-type: none"> <li>• Specialized degree in IT, computing, science, or maths</li> </ul>	<ul style="list-style-type: none"> <li>• Qualification in implementing web based solutions</li> </ul>

### Knowledge / Experience

Essential:	Desirable:
<ul style="list-style-type: none"> <li>• At least 4 years' experience as full-stack developer in web application development using Asp.Net and Javascript frameworks (e.g. Angular)</li> <li>• At least 4 years' experience administrating SQL databases</li> <li>• At least 4 years' experience with Git and CI/CD</li> <li>• Demonstrated experience in the design and development of mobile device applications</li> <li>• Experience as an Analyst, working with the client to get their information system requirements</li> <li>• Good communication skills</li> <li>• Ability to work and travel in a multicultural and multilingual environment</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of tuna fisheries and experience with tuna fisheries database systems</li> <li>• Experience with Geographic Information Systems (GIS)</li> <li>• Experience with cloud computing</li> <li>• If anglophone, a working knowledge of French. If francophone, a working knowledge of English.</li> </ul>

### Key Skills /Attributes / Job Specific Competencies

The following levels would typically be expected for the 100% fully effective level:

Expert level	<ul style="list-style-type: none"><li>• Asp.Net / C# (including ORM and DI)</li><li>• Javascript frameworks (Angular)</li><li>• Mobile application/user interface development using Ionic framework</li><li>• Database (MS SQL SERVER)</li><li>• Git</li></ul>
Advanced level	<ul style="list-style-type: none"><li>• Data Management principles</li><li>• CI/CD best practices</li></ul>
Working Knowledge	<ul style="list-style-type: none"><li>• GIS techniques</li><li>• Cloud computing</li></ul>
Awareness	<ul style="list-style-type: none"><li>• Principles of fisheries management</li><li>• Tuna fisheries data collection methods</li></ul>

### Key Behaviours

*All employees are measured against the following **Key Behaviours** as part of Performance Development:*

- Ability to make decisions independently
- Responsibility for key function of the OFP
- Showing personal accountability
- Demonstrating technical expertise
- Responding quickly and efficiently to problems
- Showing commitment

### Personal Attributes

- SPC strongly advocates equal opportunity
- Ability to work effectively within a team
- Patience and ability to keep focused on the job
- Effective communicator
- High motivation
- Resilience

### Change to Job Description:

From time to time it may be necessary to consider changes in the job description in response to the changing nature of our work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by the Director Corporate Services. This Job Description may be reviewed as part of the preparation for performance planning for the annual performance cycle.