

DATA ENGINEER

contract position

Status: Fixed-Term

Compensation Type: Contracted Day Rate

Benefit Eligible: No

Reports to: Director, Data Engineering

Location: Primarily aboard E/V Nautilus

Contact: careers@oet.org

The Ocean Exploration Trust is seeking an experienced **Data Engineering Generalist** to support annual sea-going expeditions aboard Exploration Vessel (E/V) *Nautilus* for approximately 6 weeks to 3 months per year, throughout a six- to ten-month annual field program.

Ocean Exploration Trust

The Ocean Exploration Trust (OET) is a 501(c)3 founded in 2008 to *explore* the ocean, seeking out new discoveries in the fields of geology, biology, maritime history, archaeology, and chemistry while pushing the boundaries of science, technology, engineering, and mathematics *education* and technological *innovation*. The Nautilus Exploration Program centers on scientific ocean exploration launched from aboard the 68-meter E/V *Nautilus*, supported by state-of-the-art robotic and telepresence technologies on board and ashore that are used to advance ocean exploration. For more information, visit www.nautiluslive.org.

Position Overview

Data Engineers are typically on board for two to six weeks at a time, with one Data Engineer berth available per cruise. OET anticipates this position supporting 6 weeks to 3 months of operations, as both parties' schedules permit. Applicants must have proper authorization to work in the US and have a current passport and no travel restrictions.

The Data Engineer's responsibility is to help ensure the success of the scientific and outreach mission goals by performing the following duties in collaboration with the rest of the science and operations team:

Primary Responsibilities:

- Maintenance of data acquisition computers and software (Linux & Windows)
- Monitor established software for data aggregation and replication

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- Assist ROV team with topside integration of new scientific instrumentation
- Maintain ship network - including switches, routers, traffic, physical cabling, and Keyboard/Video/Mouse (KVM) subsystem
- Maintain satellite dish uplinks (SeaTel 9711 & KVH TracPhone V7IP systems)
- Support access to, and use of, on-board scientific data collected, as well as internet access for consumer devices
- Maintain computers used for ROV operations, data collection & entry, and related supporting systems, as required
- Propose and develop incremental improvements to software, configurations, and visualization, as time allows
- Maintain maximum uptime of shipboard scientific sensor suite, including (but not limited to): Multibeam sonar, sub-bottom sensor, meteorological instruments, UCTD, XBT, and USBL
- Support Science Manager's software tools and data entry processes to ensure completeness and correctness of logged and processed data
- Support access to data for scientists ashore and OET production team
- Contribute to an inclusive work environment in which all individuals are treated with respect and dignity.
- Support OET's mission of training the next generation of STEM professionals by helping to support junior personnel participating in the expedition by engaging with them and helping to provide a positive learning experience at sea.
- To the level that is relevant to the position, contribute to OET's mission to inspire and engage youth and the public by participating in outreach activities during the expedition.

Must be able to:

- Prioritize unexpected repairs/issues, maintenance, and new work - with guidance from the Director of Data Engineering
- Keep a continuous pace of operations while at sea, including two-day turnarounds between cruises
- Be available in an on-call capacity 24/7 while at sea (no set watch schedule)
- Be physically and mentally capable of meeting the demands of living and operating aboard a working exploration vessel, including the ability to live in close quarters with other expedition team members (including a shared two-person cabin)

Skills required:

- Intermediate Linux system administration experience - including cron, apache, sudo, and configuration of new OS installations

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- Experience with a scripting language (bash, perl, python)
- Understanding of version control systems (git)
- Intermediate familiarity with MacOS and Windows administration
- Experience troubleshooting and/or repairing operational computers and communications hardware
- Familiar with basic hand tools and electrical tools
- Solid understanding of TCP/IP network design; familiarity with VLAN implementation
- Experience configuring and troubleshooting serial protocols, such as RS232 and RS485
- Removal and installation of various topside sensors for maintenance, diagnostics, and repair
- Strong team player with a proactive, service-oriented attitude
- Demonstrated ability to work collaboratively with an international, multidisciplinary, diverse team of engineers, scientists, educators, and students
- Possess strong creative, analytical, and problem-solving skills
- Excellent multi-tasking and time management skills
- Excellent verbal and written communications
- Ability to quickly grasp complex system relationships and clearly communicate these concepts to personnel without an engineering background

Preferred Qualifications & Experience:

- Advanced Linux system administration
- Experience with data processing (perl, python, matlab)
- Experience with databases
- Experience with the setup and maintenance of virtual machines
- Experience implementing advanced software/systems engineering concepts
- Familiar with the operation and maintenance of satellite communication systems
- Familiar with scientific sonar systems
- Resistance to motion sickness
- Prior experience on research vessels

Works closely with the following team members (or their senior delegates on board):

- Director of Data Engineering
- Expedition Leader
- Lead ROV Engineer
- Lead Navigator and/or Mapper
- Lead Video Engineer

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- Science Manager
- Communications Manager

To APPLY: Please submit a cover letter and resume to careers@oceanexplorationtrust.org. Position open until filled.