**Opportunity Title:** ORNL Large Scale Remote Sensing Image Analytics Post-Master's Research Associate

**Opportunity Reference Code:** ORNL19-01-CSED

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| **Organization** | Oak Ridge National Laboratory (ORNL) |
| **Reference Code** | ORNL19-01-CSED |

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**Description** Investigating model transferability in deep learning may open opportunities to reuse trained CNN models and facilitate learning processes. The project involves developing domain adaptation framework to understand model transferability in CNN-based large scale object detection. The overall goal is to devise a learning strategy to enable effective domain adaptation and to reduce human labeling efforts. First, the team will use small scale testing data and then examine the scalability on a high performance computing system and a specially designed deep learning computing system.

The Research Associate is expected to work with a team to develop and validate the framework. The Research Associate should have a background in machine learning with hands-on experience in computer vision and remote sensing data analysis.
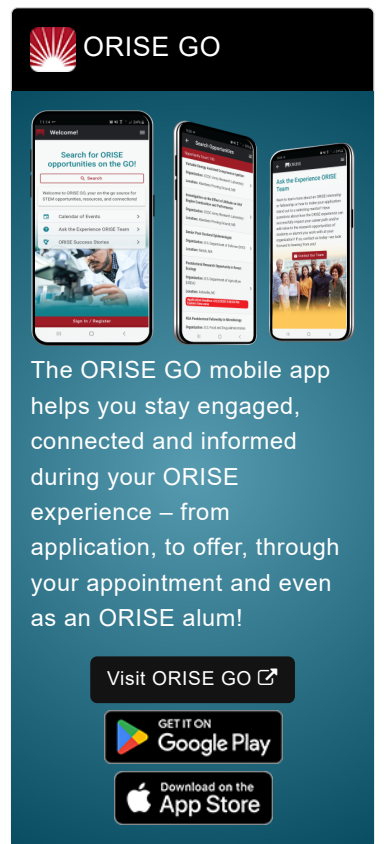
**Qualifications** Preferred:

- Familiar with deep learning libraries such as TensorFlow, PyTorch, and CAFFE
- Technical knowledge on image processing and machine learning, especially on pattern recognition
- Basic understanding in high performance computing, geographic coordinate, projection system, and GIS

The ORNL Post-Master's Research Associates Program is administered by Oak Ridge Associated Universities through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).

**Eligibility Requirements**

- **Degree:** Master's Degree.
- **Academic Level(s):** Post-Master's.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Engineering** (3 👁)
  - **Mathematics and Statistics** (1 👁)