Opportunity Title: Imaging, Signals and Machine Learning Post-Master Research Associate

Opportunity Reference Code: ORNL16-02-EESRD

Organization	Oak Ridge National Laboratory (ORNL)
Reference Code	ORNL16-02-EESRD

Description The Imaging, Signals, and Machine Learning (ISML) group at the Oak Ridge National Laboratory (ORNL) is seeking a Postmaster Research Associate with expertise in computer vision/image processing and data analytics. The ISML group conducts applied computer vision research and development addressing important issues of industrial and economic competitiveness, biomedical measurement science, and national security. The group consists of staff members with backgrounds in electrical engineering, computer science, and optical engineering, and frequently collaborates with partners in industry, academia, and other government organizations.

Major Duties/Responsibilities
This position will be responsible to pursue software development of computer vision techniques coupled with machine learning/data analytics approaches for the quality control of additive manufacturing processes. Joining a research team consisting of material scientists, electrical engineers and computer scientists, the successful candidate shall demonstrate a well-rounded ability to perform technically in at least one of the following areas:
• Computer vision and machine learning
• Multi-dimensional and multi-modal signal processing
• Spatiotemporal data mining
• Multidimensional data visualization and data understanding
The candidate will contribute in professional journals publication and scientific presentation of the work to the scientific community.
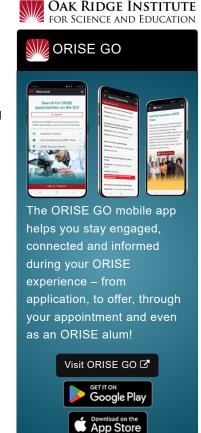
Qualifications Required
- The position requires a Master's degree in electrical engineering, computer engineering, computer science or closely related field
- Substantial programming skills using tools such as C/C++ / Python / Matlab
- Experience in designing and building algorithms for 2D and 3D image understanding
- Demonstrated experience conceiving and executing research and development projects
- Experience with the following libraries is mandatory: OpenCV, CUDA, Qt

Qualifications Major Duties/Responsibilities

This position will be responsible to pursue software development of computer vision techniques coupled with machine learning/data analytics approaches for the quality control of additive manufacturing processes. Joining a research team consisting of material scientists, electrical engineers and computer scientists, the successful candidate shall demonstrate a well-rounded ability to perform technically in at least one of the following areas:
• Computer vision and machine learning

Opportunity Title: Imaging, Signals and Machine Learning Post-Master Research Associate
Opportunity Reference Code: ORNL16-02-EESRD

• Multi-dimensional and multi-modal signal processing
• Spatiotemporal data mining
• Multidimensional data visualization and data understanding
The candidate will contribute in professional journals publication and scientific presentation of the work to the scientific community.

Qualifications Required
- The position requires a Master's degree in electrical engineering, computer engineering, computer science or closely related field
- Substantial programming skills using tools such as C/C++ / Python / Matlab
- Experience in designing and building algorithms for 2D and 3D image understanding
- Demonstrated experience conceiving and executing research and development projects
- Experience with the following libraries is mandatory: OpenCV, CUDA, Qt

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

This ORNL Postgraduate Research Associates Program is administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran

Eligibility Requirements
- **Degree:** Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Engineering** (3 👁)

Affirmation I certify that I have completed coursework towards a degree in science, technology, engineering, mathematics, or a related field.