



## EISCAT Scientific Association

# Algorithms Engineer

*Kiruna, 21 March 2019: EISCAT Scientific Association is recruiting an Algorithms Engineer for EISCAT3D*

### Job Description

The EISCAT Scientific Association is recruiting an Algorithms Engineer to work on its EISCAT3D project. EISCAT3D is a major scientific research instrument and infrastructure composed of three large phased-array antennas, a powerful transmitter, and complex computation/processing hardware and software (see e.g. <https://www.eiscat.se/about/eiscat3d7/>). The implementation phase started 1 September 2017 and the system will be ready for use in 2021. Each EISCAT3D site will have its own 10's of TFLOPS compute cluster for signal processing and data analysis and each cluster node will be GPU accelerated. The focus of this role is to design and implement algorithms for both signal processing and data analysis that will run on the on-site clusters.

Initial tasks will include beam forming of the input data and re-implementing existing analysis algorithms for the new hardware. The role will then grow with analysis requirements once the system is operational in 2021.

### Main Duties

Implementation of high performance software for signal processing and data analysis.

### Skills and Experience

Required:

- GPU Compute (OpenCL, CUDA, similar)
- C/C++
- EU work permit

Desired:

- Cluster computing, MPI
- Matlab, Python

### Terms and Conditions

The employment terms are comparable to state employment rules. This means 28 - 35 days annual vacation (depending on age), relocation coverage, good pension benefits and insurance coverage, etc.

The employment terms, including length of employment, are subject to negotiations but should not be less than for two years. The affiliation is with EISCAT Headquarters in Kiruna, Sweden and the primary work location will also be in Kiruna. A second work location, either at one of the other EISCAT sites, or at some other location, including a home-office, can be negotiated.

For further work specific details, please contact Simon Brown, Software Engineer phone: +46 72 581 33 02, e-mail: [simon.brown@eiscat.se](mailto:simon.brown@eiscat.se). For employment related matters, please contact Henrik Andersson, Head of Administration, phone: +46 70 209 43 85, e-mail: [Henrik.Andersson@eiscat.se](mailto:Henrik.Andersson@eiscat.se).





### How to apply

Applications should be sent to [e3djobs@eiscat.se](mailto:e3djobs@eiscat.se) (subject: Algorithms Engineer) at earliest convenience.  
The vacancy is open until filled.