Training Opportunity for Irish Trainees

Reference	Title	Duty Station
IE-2019- OPS-OS(1)	**Artificial Intelligence and Data Analytics for space operations**	**ESOC**

Overview of the unit's mission:

The Artificial Intelligence (AI) and Operations Innovation Manager and its team (in OPS-OS) is entrusted with:

a) providing AI related consultancy, including Data Analytics, Visual Analytics, AI Planning & Scheduling)
b) to coordinate related AI research activities in OPS and across ESA
c) to provide Data Analytics and AI services.

The team is focused on developing prototypes and novel applications to support space operations tasks, such as early detection, diagnostics, forecasting and planning, using AI technology
The team is supported by Research & Development computer facility, which allows hands-on work on artificial intelligence applications.

Overview of the field of activity proposed:

The candidate trainee will become member of the AI & Operations Innovation team and will be initially integrated in the on-going internal projects.

The projects are related to the following areas:

- Predictive analytics
- Time Series analysis
- Anomaly detection & investigation
- Text Mining
- Data-driven visualization

Activities will require collaboration with multiple teams (data scientists, IT and infrastructure, flight control teams, system engineers, etc.). The team works on multiple, related projects requiring creativity, ingenuity and a sense for holistic perspectives. The proposed traineeship involves the development of prototypes using agile methods (scrum) with analysis and understanding of user needs and constant re-prioritization.

Required education:

Applicants must have recently attained their Master degree or be close to successfully completing their studies in Computer Science, Data Science or equivalent.
Required skills:

- Good knowledge and practice of programming languages: python, java or C++
- Good knowledge and practice of mathematics: algebra, calculus, probability and statistics
- Familiar with numerical and machine learning libraries: numpy, pandas, scikit-learn, tensorflow, etc.
- Fair knowledge and practice of Linux administration and bash scripting
- Good presentation delivery skills
- Greatly developed empathy and motivation
- Fluent in English