



Space Applications Services – Internship – AI/ML Engineer

Internship Position

The ICE Cubes Service is expanding its portfolio of research payloads for the International Space Station (ISS) and other microgravity / LEO platforms, with an increasing number of experiments generating complex datasets and a number of possible applications that require the utilization of AI/ML based techniques. To support this growth, there is a need to develop and apply **AI, machine learning, and machine vision techniques** to enhance data analysis, automation, and scientific return, in addition to the support of crew activity and status monitoring.

This internship supports ongoing and upcoming payloads by contributing to the development, testing, and integration of AI/ML solutions in a multidisciplinary environment. The role offers hands-on experience at the intersection of applied AI, engineering, and space research, supporting future AI-enabled microgravity experimentation.

- **Location:** Noordwijk (NL)
- **Duration:** From 3 to 6 months
- **Start date:** As soon as possible.

Tasks and Responsibilities

The intern will support AI/ML activities related to microgravity research payloads, including:

- Collaborating with engineers and scientists to collect, curate, and preprocess experimental datasets (e.g. image, video, and sensor data from life and physical sciences experiments).
- Developing, training, and evaluating machine learning and deep learning models for applications such as image-based identification, classification, tracking, inspection, anomaly detection, and quantitative analysis.
- Implementing computer vision techniques for scientific imaging (e.g. microscopy, time-series image analysis, event detection, human pose estimation, health status and vital sign estimation).
- Supporting the integration of AI/ML models considering constraints typical of space systems (limited compute, power, and data downlink).
- Conducting testing, validating, and documenting of AI-enabled applications in laboratory and pre-flight environments.
- Contributing to studies on AI-assisted or autonomous payload concepts for future microgravity platforms.

Skills and Experience

- Currently pursuing a Master's degree (or final-year Bachelor's) in Computer Science, Artificial Intelligence, Data Science, Engineering, or a related field.

- Strong interest in applying AI/ML to real scientific and engineering problems, ideally within the space or research domain.
- Proficiency in Python for data analysis, model development, and experimentation.
- Experience with machine learning and deep learning frameworks (e.g. PyTorch, TensorFlow).
- Familiarity with computer vision techniques and data analysis libraries (e.g. NumPy, Pandas, OpenCV, Matplotlib).
- Strong proficiency with Linux-based operating systems, including development and experimentation in Linux environments.
- Strong analytical and problem-solving skills, with a hands-on and pragmatic approach.
- Ability to work effectively in a multidisciplinary team combining science and engineering.
- Curiosity, adaptability, and motivation to work in novel and constrained environments.
- Good written and spoken English.

Our Offer

- An experience within a growing company with highly motivated Engineers, Scientists and Administrative Staff coming from all different horizons and countries
- A professional and multicultural working atmosphere
- A client exposure and networking opportunities
- A full-time Internship with a monthly lump sum allowance, under certain conditions.