



MASTER'S THESIS PROJECT AT PANDIONAI: ENHANCING GEOSPATIAL DECISION SUPPORT IN EO-BASED SATELLITE CONSTELLATIONS THROUGH ALERTSAT PORTAL

Are you passionate about geospatial information, GIS, Earth Observation, and space?

We invite you to embark on an exciting journey with PandionAI for your Master's Thesis, where you'll be at the forefront of enhancing AlertSat's geospatial support.

Project Overview

In today's world, satellite systems, particularly Earth Observation (EO)-based satellite constellations, deliver vast volumes of data. A significant aspect of the system's design development will revolve around enhancing the users' decision-making capabilities by leveraging geospatial methods. This involves organizing, filtering, and aggregating satellite information and integrating it with the user's own data and interfaces. If you possess prior experience with GIS and are competent in accessing satellite data via GUI and API from existing image databases such as Sentinel Hub, ESA SciHub, Copernicus Ecosystem Browser, and more, you have a valuable head start.

Job Type: Master Thesis / Internship

Location: Kista (Stockholm), with the flexibility of hybrid remote work

Scope of Project

- **Analyzing the Task:** Engaging in conversations with users/customers and conducting thorough literature studies to gain a deep understanding of the problem at hand.
- **Data Management:** Outlining the types of data to be handled, establishing the necessary information flow, and identifying the required analysis functions.
- **Integration Considerations:** Analyzing the potential integration of third-party systems like QGIS, GE, Cesium, MapBox, or similar tools.
- **Development:** Designing, coding, and integrating a fully functional end-user spatial analysis system into the AlertSat Portal.
- **Presentation and Demonstration:** Showcasing your system to customers using realistic data sets, highlighting its real-world applicability.

About PandionAI

PandionAI, established in 2019, is an innovative start-up company in the space industry, specializing in Earth Observation, with a strong focus on downstream applications and AI/IT development. We are seeking passionate individuals to join us on our journey to put the AlertSat satellite constellation in space and to contribute to shaping the development of AlertSat's services in close collaboration with our dynamic team.

At PandionAI, our mission is to secure time-critical intelligence through AI-based analysis from our AlertSat satellite constellation. We are currently working on a system that utilizes image recognition for event detection directly on board the satellites, enabling real-time information delivery. Our ultimate goal is to bridge the gap between satellite data collection and end users, resulting in enhanced safety, transparent information dissemination, and rapid response to events happening on Earth's surface. We empower our users with the ability to make informed decisions in the face of rapid changes and critical events.

Interested? Send your CV and some description of why your interest in this project is of extra-large interest to PandionAI to career@pandionai.com.