Data Scientist & Mapping Specialist

Job description

Embedded in the Geospatial Solution Development team, the Data Scientist & Mapping Specialist is responsible for the end-to-end development, specification, monitoring and maintenance of satellite data science workflows and processing algorithms/ analytics, addressing diverse use cases in multiple verticals market.

As Data Scientist & Mapping Specialist you will define and deliver the foundation layers of the 2D and 3D environment, generate topographic maps and vector database leveraging high-end satellite data and derive thematic maps such as aeronautical obstacles, land use / land cover to fuel our existing and future geospatial solutions addressing commercial and defence use cases (air mobility, low level flights, simulation, eTOD, land management, urban planning, green islands, environmental impact assessment & monitoring, etc..

You will collaborate with an experienced team of engineers and product owners/ project managers to build scalable solutions. You will be deeply involved in working with our customers and the broader industry to research and understand the ever evolving needs and use cases leveraging satellite data. The position offers the possibility to constantly explore new operational needs of new customers and to develop innovative services leveraging unique high-technology such as 30 cm resolution imagery from our Pléiades Neo satellites, 3D models with our future CO3D constellation and unique Data Science/ AI/ ML processing capabilities. You will be potentially involved in the workflow definition to automate as far as possible 3D models and vector database production.

Main objectives

1. In close relationship with the Innovation team and the Analytics Product Owners you will develop, qualify and maintain the algorithms and AI/ ML models fuelling our existing or future mapping solutions.

2. As member of the Data Science team you will define, validate and continuously improve the Data Science & Mapping workflows answering to the qualified 3D and urban use cases brought to you by different channels: Projects, Sales, Business Developers, or yourself!

3. Contribute to continuous improvement and projects/ service quality by regularly monitoring the operational algorithms/ models performance and the overall workflow stability

4. Support the growth of the activity by contributing to bids by scoping, defining and costing the Data Science activity within the project or service to be proposed

5. Act as a Data Science consultant by supporting the use case qualification and customer conversion, by learning continuously and by disseminating your knowledge and know-how internally and externally

6. Together with the Business Development team define and implement Proof of Concepts to boost the qualification of customer needs and the consolidation of the solution workflow.

Skills

Required –the following is an absolute must-have:

- PhD or Masters in a relevant field (Computer Science, Remote Sensing, Geographic sciences, Statistics, Applied Math...)
- 3-5 years of experience applying advanced AI/ ML techniques to real-world problems
- Experience implementing a breadth of different modelling approaches/ techniques

- Experience manipulating satellite or aerial data, derived products (DSM, DTM, 3D points cloud) and land cover maps from images
- Knowledge of mapping basics: cartographic database organization and use, map projections, geodetic systems, photogrammetry (ortho-correction of images, DSM production)
- Demonstrated ability to iteratively conceptualize, design and build data-driven analytical models
- Experience with common analysis tools (Python, SQL, R and Matlab). Demonstrable familiarity with code and programming concepts.
- Strong communication skills: Ability to translate deep mathematical concepts and practices into language that non-experts can understand and build upon. And conversely, ability to translate business needs and user needs into language and concepts that other data scientists can understand and work with.
- Ability to work on military projects
- Creative problem-solver, able to think out of the box and resilient -able to deal with complexity
- Fluent English

Bonus –you will get an edge if you can exhibit the following:

- Experience of Geospatial Information Services tools (ArcGIS, QGIS, Geomedia, AutoCAD Map 3D, etc.), related applications and use cases (Smart Cities, Climate& Energy, Hydrology, Risk Management, Civil Engineering, etc.)
- Knowledge of IoT and possible urban applications using very high-resolution images
- Experience in cloud development (GCP, Azure, AWS, etc.)
- Demonstrated energy and passion that extends beyond your field of study

If you are a genuine problem-solver, passionate about fulfilling the challenge of leveraging geospatial decision making for enterprise clients, if you are excited about the opportunity to join a global, dynamic, fast-growing business at the heart of geopolitical and environmental change on the planet, please submit your profile!

We can't wait to hear from you…