



Backend Python (Data Processing) – Software Developer - Maritime Domain Awareness

At C-CORE, we are committed to investing in people and creating a dynamic and rewarding employment experience. We are seeking a **Software Developer** to join our COREsight Team. This position is based in St. John's, NL.

If you have a passion for complex design solutions, hands-on development, and contributing to cutting-edge R&D projects from concept to commissioning, this opportunity may be for you. Are you enthusiastic about engineering, attentive to detail, and motivated to support a diverse team of professionals in a dynamic environment? If so, we want you on our team!

About C-CORE

C-CORE conducts R&D and provides research-based advisory services, delivering innovative engineering and technology solutions to national and international clients. For over 50 years, we have built a world-class team of professionals in Remote Sensing and Oceans & Energy. We are global leaders in Earth Observation and geospatial intelligence, with our flagship platform COREsight driving major contracts in defense, environmental monitoring, and advanced R&D.

Position Overview

COREsight is a Maritime Domain Awareness (MDA) platform that fuses satellite imagery (SAR, optical), AIS vessel tracking, and RF signal detection into a real-time analyst environment used by government and defence customers, including an active NATO-affiliated deployment. We are scaling COREsight from a single-customer service into a multi-tenant commercial platform, and we need a backend engineer to help harden and scale the processing environment that ingests, correlates, and scores maritime detections around the clock.

You'll work on the pipelines that turn raw satellite tasking, AIS feeds, and RF detections into structured, queryable intelligence — reporting to the Director, COREsight, and working closely with front-end developers building the analyst tools your data powers.

Key Responsibilities

- Build and maintain Python data pipelines (Prefect) that ingest satellite imagery, AIS positions, and RF detections and turn them into structured targets
- Work on the satellite tasking adapter layer that abstracts multiple providers (RCM, Sentinel-1, ICEYE, and others) behind a unified interface
- Integrate new ML capabilities and ensure ML/Ops principles are followed
- Improve reliability of ingestion processes

- Design and evolve Postgres/PostGIS schemas, including append-only audit tables, to support target lifecycle management (staleness, confidence scoring, correlation)
- Contribute to the geospatial data cataloguing layer (STAC/pgSTAC/TiTiler) used to serve imagery and derived products
- Work within a GCP/Kubernetes environment; contribute to observability and DevOps best practices
- Participate in code review and help build the operational discipline (monitoring, alerting, deployment safety) needed, as we onboard new customers beyond our current NATO-affiliated deployment

Desired Qualifications

- 3–5 years of professional experience in Python backend development
- Experience building or maintaining data pipelines or workflow orchestration (Prefect, Airflow, Dagster, or similar)
- Strong SQL skills; experience with Postgres, including working with JSONB and designing for auditability
- Comfort working with third-party/external APIs that are unreliable or poorly documented, and building resilience around them (retries, idempotency, race-condition handling)
- Ability to work independently against specifications and ask sharp clarifying questions rather than guessing
- Eligibility to obtain and maintain Government of Canada Secret-level security clearance
- Experience with geospatial data (raster/vector), STAC catalogs, or Earth Observation image processing (asset)
- Familiarity with maritime domain concepts (AIS, vessel tracking) or defence/government software environments (asset)
- Experience with Kubernetes-based deployments using ArgoCD (asset)
- Exposure to real-time or near-real-time data systems (asset)

Why Join Us?

C-CORE offers competitive salaries and benefits, including attractive vacation entitlements and comprehensive medical and dental plans. We support professional development and personal growth. Here's what makes this role special:

- **Modern Frontend Stack:** React/Mapbox/Vite/React-query/Zustand
- **Impact:** Your work will directly support important national and global initiatives, from defense contracts to climate resilience.
- **Innovation:** Work on a platform that supports cutting-edge solutions in AI, defense, environmental monitoring, and R&D.
- **Collaboration:** Join a team that values knowledge sharing, curiosity, and is passionate about what we do.

- **Growth Opportunities:** Be part of a growing team with plenty of opportunities for professional development.

C-CORE is an equal opportunity employer. Due to the nature of this role, candidates must be Canadian citizens eligible for Government of Canada security clearance at the Secret level.

How to Apply

Please forward your resume electronically to: careers@c-core.ca, stating "**Backend Python (Data Processing) – Software Developer - Maritime Domain Awareness**" in the subject line.

Deadline to Apply

August 13, 2026

C-CORE thanks all applicants; however, only those selected for an interview will be contacted.