The Role of GeoAI in the National Geospatial Strategy

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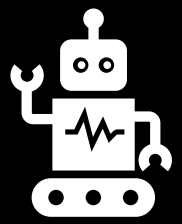
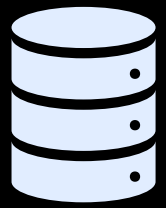
Why GeoAI ?



3. GeoAI enabled automation driven by emerging high-stake applications

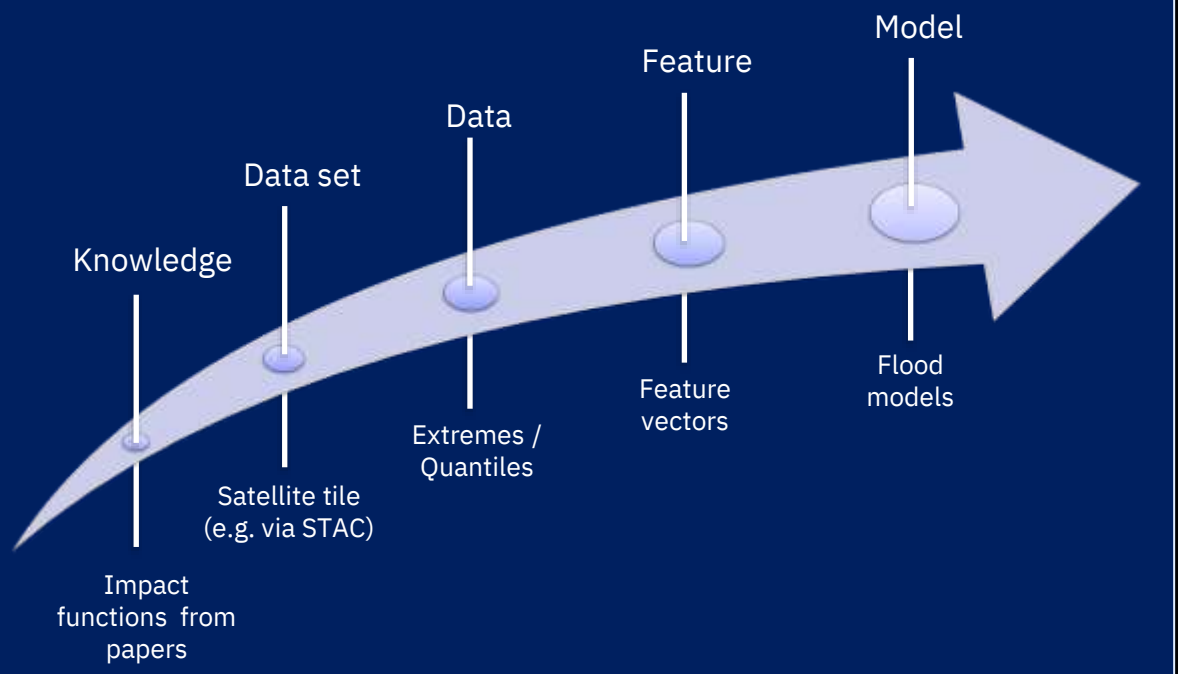
2. Acceleration in maturity of AI with the emergence of generalizable foundation models



1. Massive digitization of "physical" word continues to create massive geospatial data sets

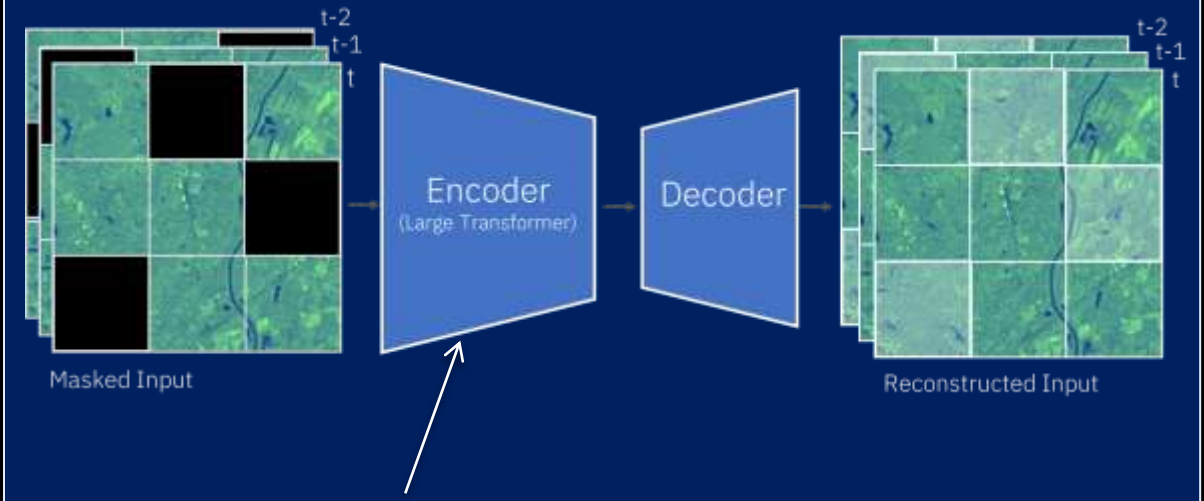
A GeoAI-ready National Geospatial Strategy

Distributed Discover Services



⇒ Move beyond dataset dissemination to federated/distributed discovery services

Modeling Services

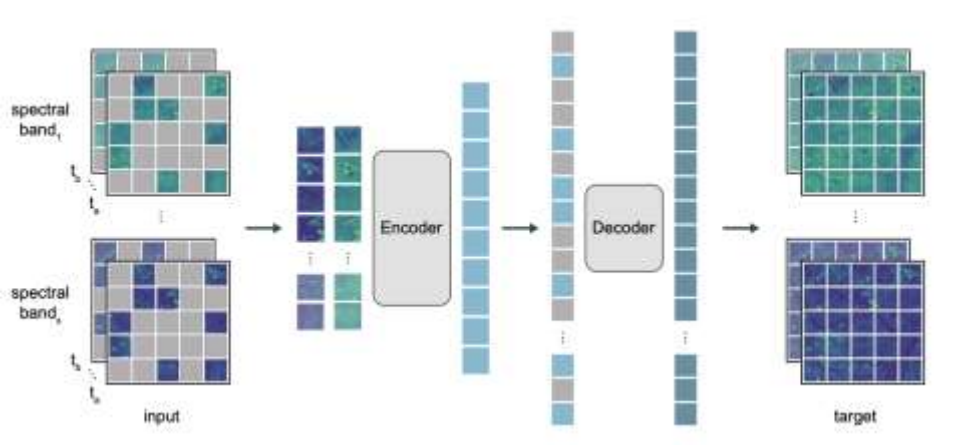


AI Foundation Model

⇒ Learnt representations of large data sets to be readily used for GeoAI finetuning applications

An example of a GeoAI Partnership between NASA IBM

- **Pre-trained** using NASA datasets and expertise
- Leverage **self-supervised learning** (i.e., masking imagery or timeseries)
- Able to effectively complete **multiple geospatial and environmental applications** while meeting accuracy baselines (e.g., disaster response, agriculture, and climate change)



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IBM and NASA Open Source Largest Geospatial AI Foundation Model on Hugging Face

Effort aims to widen access to NASA earth science data for geospatial intelligence and accelerate climate-related discoveries

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