

Harnessing Satellite Big Data for Weather and Environment Intelligence

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Comprehensive new weather and environmental information-rich heterogeneous data, in the era of “Big Data”, are being generated routinely with the rapid advancement of space-borne, air-borne and ground-based remote sensing and in-situ sensors. We are to leverage this phenomenal volume of complex data using sophisticated data analytics for the betterment of our society and for advancing commercial opportunity.

By integrating weather and environment satellite big data with sophisticated mathematical algorithms, high-performance computing power, and deep learning analytics, we now can achieve a hyper-fine-grained localized, and highly accurate weather and environment intelligence infrastructure. Coupled with state-of-the-art visualization and mobile technologies, such a system delivering information products in near-real-time has the potential to have a significant impact on societal activities and on a range of commercial enterprises.

We are to demonstrate a development of a cutting-edge prototype system suitable for metropolitan areas around the world with a set of local four-dimensional grids of thousands of street blocks, rapidly refreshed with the latest weather and environment intelligence, and with detail relevant to individual activities and various enterprise operations.

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