

- Python/C++ interface development for modular geolocation algorithm implementation
  - Build a Python/C++ interface to JPSS VIIRS SDR processing geolocation algorithm
  - Wrote Python code to load ADL C++ COMMONGeo libraries for modular geolocation processing
  - Tested C++ interface with ADL libraries
- Python-based code development to process CCSDS-based raw telemetry data packet and read-out/monitor ephemeris (position and velocity) and spacecraft attitude (pitch-roll-yaw) information
  - Applied to monitor the recent SNPP spacecraft anomaly
- Python Tensorflow/Keras based deep learning multi-variable prediction to prepare for machine-learning radiative transfer modeling
  - Will transfer the work to Evan Guenterberg (a UMD Computer Science Sophomore Undergrad) to continue

Testing the Python-based satellite attitude monitoring code during an SNPP Anomaly: Sun-pointing

