Machine learning PLANET high resolution training data for medium resolution land cover & disturbance mapping

NASA ADVANCING COLLABORATIVE CONNECTIONS FOR EARTH SYSTEM SCIENCE

responding to

Machine Learning for Earth Science Data Systems: Creation of training data

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Task #1 *Develop deep learning algorithms to derive training data from PLANET time series*

- Active Learning
  - Convolutional Neural Network (CNN) U-net
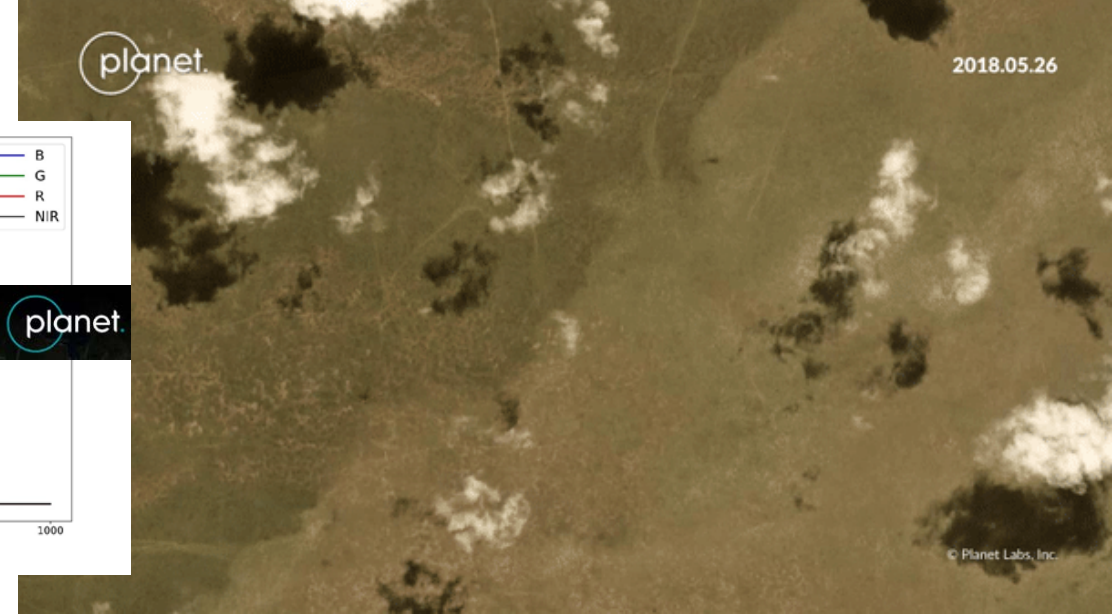 - Gated Recurrent Unit (GRU) U-net
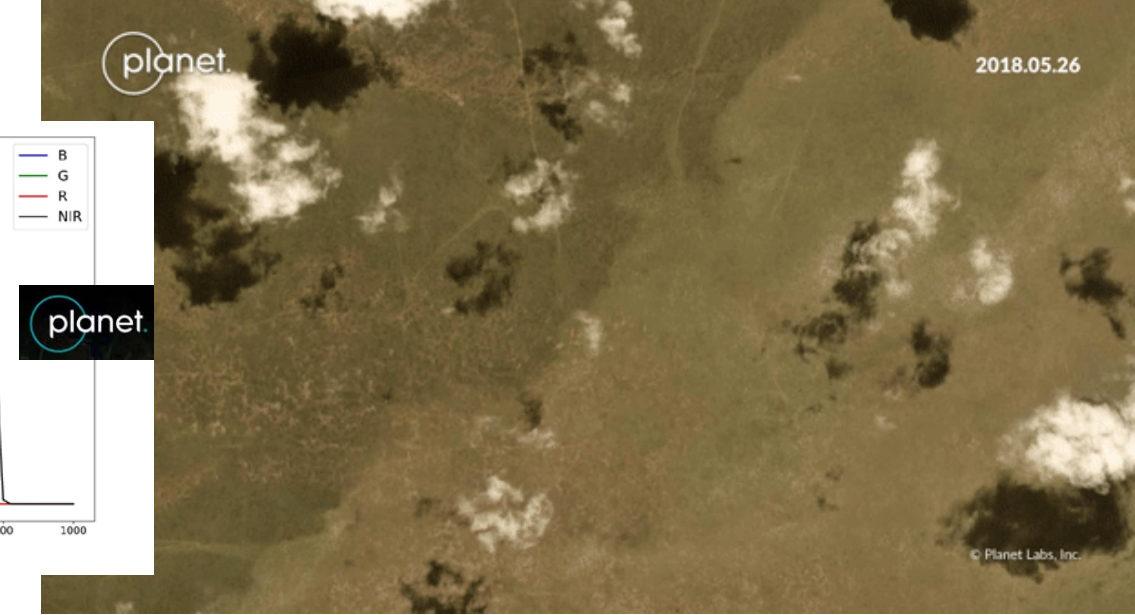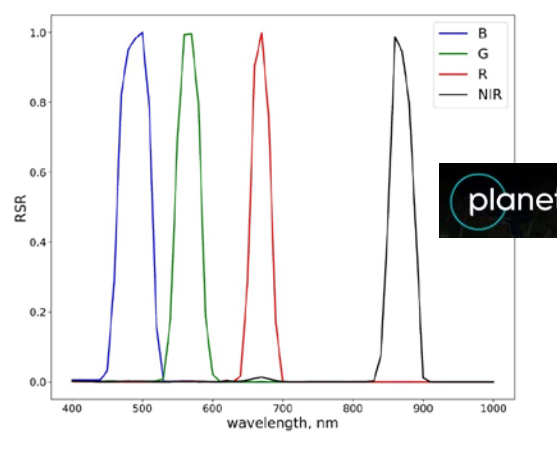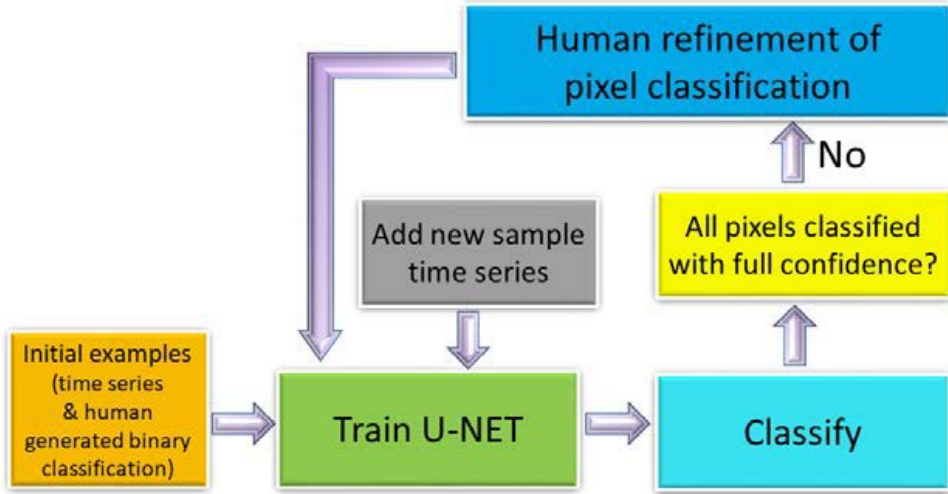
Task #2 *Deep learning to derive high quality training data sets*

- Burned area 256 × 256 3m chips (pre-fire post-fire time series)
- Tree cover 256 × 256 3m chips (leaf on, leaf-off as appropriate)

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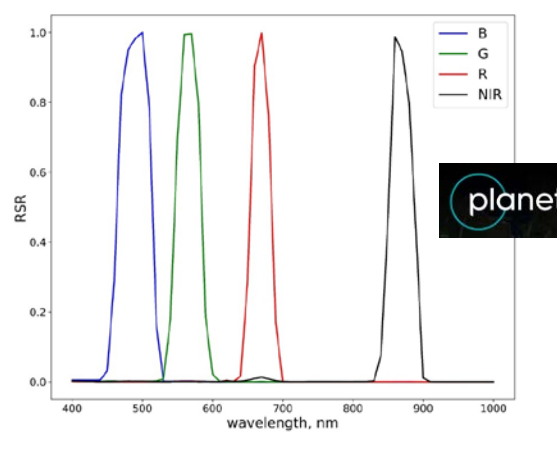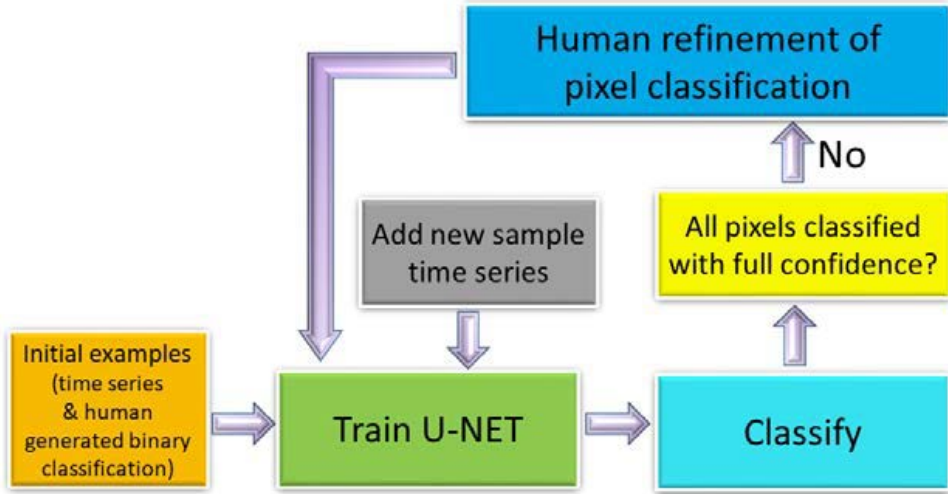 - Gated Recurrent Unit (GRU) U-net

Task #2 Deep learning to derive high quality training data sets

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Task #3 Provide algorithms and software via the peer reviewed literatue and open source code repositories

Task #4 Provide the clean, quality-controlled, labeled training data to the public