Machine Learning for Global Land Cover Classification

A Radiant.Earth Expert Workshop to Further Global Development

14-15 June 2018
Cabinet Room, Omni Shoreham Hotel, Washington, DC

Agenda

DAY 1: THURSDAY, 14 JUNE 2018

8:00   Meet and greet, coffee, light breakfast

9:00   **Welcome**
Dan Lopez, CTO, Radiant.Earth

9:15   **Workshop Overview and Expected Outcomes**
Hamed Alemohammad, Lead Geospatial Data Scientist, Radiant.Earth

9:30   **Plenary: Perspectives on Advancing LC Classifications for Machine Learning**
Moderator: Anne Hale Miglarese, CEO, Radiant.Earth
Speakers (15 min each):
Tasso Azevedo, Lead, MapBiomass
Budhendra Bhaduri, Corporate Research Fellow and Group Leader, Oak Ridge
    National Laboratory
Mark Friedl, Professor, Boston University; and Co-Founder, Tellus Labs
Matthew C. Hansen, Professor, University of Maryland
Chris Holmes, Product Manager, Planet; and Technical Fellow, Radiant.Earth

10:45   **Break and Group Photo**

11:00   **Lightning Talks**
*Speakers (*5 min + 2 min Q&A *each):*
Lyndon Estes, Assistant Professor, Clark University
Christopher Lynnes, EOSDIS System Architect, NASA
Murali Krishna Gumma, Remote Sensing and GIS Scientist, CGIAR
Ryan Engstorm, Professor, The George Washington University
Drew Bollinger, Developer, Development Seed/Synergise
James Gill, Data Scientist, Facebook

Markus Walsh, Senior Research Scientist, Selian Agricultural Research Institute
Rob Emanuele, VP of Research, Azavea
David Grason, Senior Manager, Platform Analytics, DigitalGlobe
David Lindenbaum, Principal Engineer, CosmiQ Works

12:15   Lunch

13:30   Breakout Session 1

Three working groups will convene to discuss and develop related documents, standards, or other recommendations:

Working Group 1: Land Cover Taxonomy
Discussion Facilitator: Markus Walsh, Senior Research Scientist, Selian Agricultural Research Institute
Rapporteur: Yonah Bromberg Gaber, Platform Developer Community Associate, Radiant.Earth

Working Group 2: Machine Learning Algorithms
Discussion Facilitator: Lyndon Estes, Assistant Professor, Clark University
Rapporteur: Yoni Nachmany, Machine Learning Intern, Radiant.Earth

Working Group 3: Training Data Specifications
Discussion Facilitator: Chris Holmes, Product Manager, Planet; and Technical Fellow, Radiant.Earth
Rapporteur: Hamed Alemohammad, Lead Geospatial Data Scientist, Radiant.Earth

Groups will take break and engage with other working groups as needed.
Coffee and refreshments will be served at 3:00 pm

16:30   Group Discussion: Report Out

The results of each working group will be presented and discussed, capturing key recommendations, challenges, outstanding issues, etc.

17:30   Adjourn

18 - 21 Reception

Forum Room, Omni Shoreham Hotel, Washington, DC

DAY 2: FRIDAY, 15 JUNE 2018

8:00   Meet and greet, coffee, light breakfast

9:00   **Opening and Review of the Previous Day's Results and Day 2 Expected Outcomes**
            Hamed Alemohammad, Lead Geospatial Data Scientist, Radiant.Earth

9:15   **Breakout Session 2**
            Participants will gather in their respective working groups to continue the
            conversation based on the review of the previous day's discussion and
            recommendations from the whole team.

            Groups will take break and engage with other working groups as needed.

            Coffee and refreshments will be available at 10:30 pm

12:00   **Lunch**

13:00   **Breakout Session 2 (continued)**

15:00   **Break**

15:15   **Report Out and Final Discussion**
            Each group will present (20 min) the final outcome of their discussions and
            development of the documentation related to their topic. Remaining issues will
            be highlighted.

            Recommendations for next steps to resolve the remaining issues and further
            development of the documentations will be aggregated in the GitHub
            repositories.

17:00   **Adjourn**