

## **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

Aislinn Pearson, Head of Product Development, Innovative Solutions for Decision  
Agriculture

Drew Bollinger, Developer, Development Seed  
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

**12:20 Lunch**

**13:45 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**