



## PROFILE

Tony is an expert in forest modeling, species distribution modeling, deep learning, and big data analysis. He specializes in applying machine learning techniques to ecological issues, including climate change and forest disturbances. Tony has combined field and research based conservation experience with numerous federal agencies and NGOs. He is the recipient of numerous national awards including the NASA Earth and Space Science Fellowship, David H. Smith Conservation Research Fellowship, Microsoft AI for Earth Grantee, and a National Geographic Explorer.

## CONTACT

WEBSITE:  
[www.vibrantplanet.net](http://www.vibrantplanet.net)

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[tony@vibrantplanet.net](mailto:tony@vibrantplanet.net)

## SELECT PUBLICATIONS

"Towards Continuous Streamflow Monitoring with Time-Lapse Cameras and Deep Learning." COMPASS 2022 - Proceedings of the 2022 Conference on Computing and Sustainable Societies.

"Recurrent neural network reveals overwhelming sentiment against 2017 review of US monuments from humans and bots." Conservation Letters, e12747

"A Multi-Task Recurrent Convolutional Neural Network for Forest Classification and Structural Estimation." 2019. Remote Sensing, 11, 768.

"Patterns and variability of projected bioclimatic habitat for *Pinus albicaulis* in the Greater Yellowstone Area." PloS One, 9(11)

# TONY CHANG

## EXPERIENCE

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### Lead Data Scientist – Vibrant Planet

2022 – present  
Incline Village, NV

### Data Scientist - Conservation Science Partners

2017 – 2022  
Truckee, CA

### Adjunct Faculty - Northern Arizona University

2019 – present  
Flagstaff, AZ

### Earth and Space Science Research Fellow - National Aeronautics and Space Administration

2014–2017  
Bozeman, MT

### Research Assistant - Montana State University

2012–2014  
Bozeman, MT

### Research Assistant - Northern Arizona University

2010–2012  
Flagstaff, AZ

### Research Assistant - US Geological Survey

2011–2011  
Flagstaff, AZ

### Maintenance Worker (Backcountry Trails) - National Park Service

2008-2008  
Yosemite National Park, CA

### Forestry Technician (Hotshot) - US Forest Service

2006-2006  
Flagstaff, AZ

## EDUCATION

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### Montana State University

2012 – 2017  
Environmental Science and Ecology (PhD)

### Northern Arizona University

2011 – 2012  
Geographic Information Systems (Certificate)

### Northern Arizona University

2008 – 2011  
Environmental Science and Policy (Master of Science)

### University of California Los Angeles

2000 – 2005  
Mechanical Engineering (Bachelor of Science)