PhD Position in Wetland Remote Sensing

The Remote Sensing and Geospatial Analysis Laboratory (RSGAL) at the University of Washington is looking for a motivated PhD student to join a fully funded NASA Carbon Monitoring System project studying Teal Carbon – Stakeholder-driven Monitoring of Forested Wetland Carbon. The PhD funding is in the form of a Graduate Research Assistantship covering salary, benefits and tuition for 3 years (starting as early as January 2020), with the option of extending for an additional 2 years based on yearly performance evaluations and future funding availability. The position will entail working with an interdisciplinary team of scientists: Dr. L. Monika Moskal, Dr. David Butman, Dr. Meghan Halabisky, and Dr. Brian Harvey, and stakeholders to develop and implement a remote sensing driven, spatiotemporally explicit approach to monitoring total carbon stocks of forested wetlands. The project will demonstrate to stakeholders a rigorous approach for detecting and assessing carbon stocks in forested wetlands and understanding the effects of disturbances and recovery on these stocks. This will improve understanding of differences in carbon storage between forested wetlands and uplands with similar aboveground carbon stocks, across a range of hydrodynamics, moisture regimes, and disturbances.

Required skills include: a MSc degree related to wetland ecology and/or carbon cycling in combination with geospatial techniques (remote sensing & GIS). Experience with lidar is strongly desired. We seek a collaborative and integrative scientist possessing advanced understanding of spatial data and capable of applying new knowledge to grand challenges. The candidate will work independently and collaboratively on interdisciplinary frontiers of knowledge, demonstrate creative quantitative thinking using field data and remotely sensed data, and possess statistical, modeling, communication and writing skills.

Preferred skill sets include foundations in soil science, landscape and forest ecology, GIS, digital aerial photogrammetry, experience in stakeholder engagement and overseeing of field crews. Coding and cloud computing skills are a strongly desired asset.

About RSGAL
Established in 2003, RSGAL is a research partner of the Precision Forestry Cooperative (PFC) in the College of the Environment, School of Environmental and Forest Sciences (SEFS) at the University of Washington. RSGAL’s mission is to provide a research rich environment and exceptional resources that drive the understanding of multiscale dynamics of landscape change through the innovative application of remote sensing and geospatial tools. RSGAL research promotes a transdisciplinary approach for sustainable management solutions to pressing environmental issues. RSGAL strives to understand the fine details of spatiotemporal resolution of multi-aspect ecosystem processes and functions, through the application of innovative geospatial techniques and datasets. The lab excels at using hyperspatial (<100cm) data including drone, aerial satellite imagery and lidar, hypertemporal (>100 temporal observations) data and hyperspectral (>100 spectral observations) data to fuse these multiple domains of remote sensing resolution whenever appropriate. Diversity, equity and enrichment are at the core of the RSGAL mission, our commitment to this goal is parallel to that articulated in the UW Diversity Blueprint.

What to submit
There are two parallel steps to your application process:
- First assure that you meet the UW SEFS Graduate Program requisments, then, submit a cv and 1 page cover letter describing your fit with the projects and how you will leverage it in your PhD research. How you would build on past experience, interest and knowledge fits. This should be submitted to: tealcarbon@uw.edu by November 18th, 2019, use subject line “Teal Carbon GRA Application’
- Second, the selected candidate will be required to apply to the UW SEFS Graduate Program before December 1, 2019.

Application due date
Application review will begin at the end of October 2019 and will continue until November 18th, 2019. Selection of the candidate will be made on November 22nd, the candidate will be contacted on that day and instructed to submit the full UW SEFS Graduate Program application by December 1, 2019.