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LEVI WEST MADENBERG

OBJECTIVES

- To research and develop Remote Sensing methods for evaluating and promoting vegetation species biodiversity within the context of climate change.
- To use remote sensing and geospatial technology to promote a better universal understanding of Earth's ecosystems, and leverage that understanding to the benefit of their inhabitants

SUMMARY

- U.S. citizen
- 3 years of experience in Remote Sensing related work for both government and commercial clients
- 2 years project management / team lead experience
- BA of Environmental Studies Concentrating in Remote Sensing and Spatial Analysis from Gettysburg College
- Proficient in satellite image processing, land cover analysis, change detection, workflow execution and evaluation

WORK EXPERIENCE

MAXAR (FORMERLY RADIANT SOLUTIONS, FORMERLY MDA INFORMATION SYSTEMS LLC, FORMERLY MDA FEDERAL INC., FORMERLY EARTH SATELLITE CORPORATION): ASSOCIATE R&D SCIENTIST – 11/2018 TO PRESENT

Supervisor: Jackie Luders, Director of the Remote Sensing Earth Science Team, may be contacted

Duties:

- Evaluate and improve upon existing methods for analyzing satellite imagery used by the Remote Sensing Data Science team based on documented research and scientific testing
- Act as the POC for several tools and workflows used throughout the company, executing them for commercial clients as needed
- Act as team lead on several R&D projects, coordinating other members of the R&D team to meet goal-oriented tasks and deadlines
- Perform evaluations of competing landcover and change detection products and compare them to our own.
- Assist in the development of workflows, models, and algorithms to reduce costs and increase efficiency for use in a wide range of geospatial projects

Selected projects I managed, or contributed extensively to:

- Persistent Change Monitoring (PCM), automated global change detection based on mid and high-resolution satellite imagery (NUCI – DHS, RPM –

USG, FTC)
- Various Automated Global Land Cover Datasets at medium and high resolutions including general land cover, soil classification, soil moisture, water inundation frequency, and others (USG)
- Cloud-based workflow development
- High-Resolution Landcover workflow that utilizes both high and medium resolution imagery.
- Global Land Cover Basemap, 13-class land cover dataset based on Landsat imagery using a semi-automated approach
- Coastal Change Analysis Project, land cover and change detection, on-going work since 2001 (NOAA)
- Illicit crop detection
- The testing and execution of TexVeg, an approach meant to capture vegetation maturity

MAXAR: TEAM LEAD GEOSPATIAL ANALYST– 8/2017-11/2018

Supervisor: Brandon Wyzowski, Geospatial Production Manager, may be contacted

Duties:

- Execute geospatial workflows pertaining to landcover map production
- Lead a team of geospatial analysts in executing workflows pertaining to temporal water and saturated soils detection and analysis
- Conduct high-resolution costal landcover analysis for NOAA
- Quality Control and validation of geospatial products

EDUCATION

B.A. ENVIRONMENTAL STUDIES CONCENTRATING IN REMOTE SENSING AND SPATIAL ANALYSIS, GETTYSBURG COLLEGE, MAY 2017

Senior Thesis: Evaluating the Impact of Tourism on the Mangrove Population of New South Whales, Australia

TECHNCIAL EXPERIENCE

SOFTWARE:

- **ERDAS IMAGINE** – Advanced level in all functions
- **ArcGIS/ArcPro** – Advanced level in all functions
- **ENVI** – Advanced in most functions
- **See5/C5** – Regression analysis for discrete classification of data
- **R** – Statistical analyses
- **SNAP/Sen2cor** – Used mainly for transforming Sentinel-2 imagery to surface reflectance
- **QGIS/GRASS** – GIS packages, general GIS operation
- **Microsoft Excel** – Management of projects, budgets and tracking, classification validations, product evaluations.

OTHER SKILLS:

- Python
- Certified Sailing Instructor