Kjirsten Elizabeth Coleman, MSc

LinkedIn Portfolio kjirstencoleman@gmail.com +1 223-216-1724

Summary

Two-term NASA applied geosciences intern with an MSc in Natural Resources Management and a background in ecology. I specialize in the application of GIS and remote sensing as tools for quantifying land-cover change, monitoring air & water quality, modeling disaster events, and habitat & biodiversity mapping.

Technical Skills

- Geospatial modeling and mapping (ArcGIS, AGOL, QGIS, GEE, JavaScript, R, Python)
- Data collection, management, visualizations and analysis
- Satellite data processing: multispectral, atmospheric, and synthetic aperture radar data
- Technical writing, proposal and project development
- Languages: English (fluent), Norwegian (intermediate), Korean and French (basic)

Education

Norwegian University of Science and Technology — MSc, 2019 — Natural Resources Management
- Thesis title: "Uncovering the Impacts of Fencing in the Mara: an assessment of vegetation and bare soil using remote sensing and stakeholder participation"

Portland State University — BS, 2009 — Biology

Experience

DEVELOP Program Intern, NASA Jet Propulsion Laboratory (Pasadena, CA) — Sep – Nov 2021
- Developed a mixed methods analysis for modeling tropospheric ozone, investigated emissions sources of localized ozone spikes, built a python tool for atmospheric data visualization.

Research Assistant, University of Illinois Urbana-Champaign (Urbana, IL) — Apr - Aug 2021
- Designed workflow for field data collection, built network of stakeholders, created GIS maps of study area and bat habitat, managed database and field assistants, analyzed data.

DEVELOP Program Intern, NASA Goddard SFC (Greenbelt, MD) — Jan - Apr 2021
- Built a habitat suitability model using machine learning algorithms for environmental contaminant monitoring, created outreach materials to facilitate communication of results to stakeholders and general public.

Geospatial Consultant, Heimdal Satellite Technologies (Oslo, Norway) — Dec 2020 - Mar 2021
- Built a workflow for machine learning analysis of geo-intelligence data, created a novel classification method for monitoring crop disease.

Research Assistant, AfricanBioServices (Trondheim, Norway) — Jul – Oct 2019
- Advised EO data sourcing, collected and analyzed remotely sensed data, presented at conference, co-authored a scientific paper regarding vegetation regrowth and wildlife behavior

Primary School Teacher, Metropolitan Office of Education (Republic of Korea) — Feb 2011 - Apr 2017

Urban Forestry Community Outreach Specialist, City of Portland (Portland, OR) — May 2010 - Jan 2011

Environmental Engineering Intern, City of Portland (Portland, OR) — Aug 2007 - May 2009

Ecological Field Experience

Sea-kayak guide & naturalist in Washington; Vegetation Field Technician in Nevada; Sea turtle conservation project in Malaysia; Telemetry surveys of sage grouse and goshawk in Nevada; Amphibian egg-mass counts in urban wetlands in Oregon; Capture and marking of migratory salmon in Oregon; Mist-netting and banding songbirds in Oregon; Plant functional trait/speciation analysis project in Oregon

Publications

Wana, D., Smith, S.W., **Coleman, K.**, Speed, J. (2021) "Proximity to high densities of pastoral settlements reduces grassland regrowth in a protected tropical savannah" *Biotropica.* doi.org/10.1111/btp.12977

Hunninck, L., **Coleman, K.**, Boman, M., O'Keefe, J. (2022) "Far from home: distance to roost decreases bat's contribution to crop pest control" (Manuscript)