Nikole Vannest

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EDUCATION

Master of Environmental Science and Management (Expected June 2022)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)

Specialization: Conservation Planning | Focus: Data Science
Highlighted Courses: Environmental and Population Modeling, Advanced GIS, Environmental Data Analysis, Conservation Planning and Priority Setting, Landscape Ecology, Strategic Planning for Non-Profit Ventures
Awards: Forest Sustainability Fellowship (Awarded $18,879)
La Kretz Graduate Fellowship (Awarded $10,560)

Bachelor of Science in Plant Biology (May 2014)
Michigan State University, East Lansing, MI

Awards: Norman A. Good Scholarship, MSU Department of Plant Biology (Awarded $1,000)

MASTER'S GROUP PROJECT

Estimating Mountain Lion Habitat Connectivity at the Dangermond Preserve (JLDP) (3/2021 – Present)
Role: Data Manager | Client: The Nature Conservancy (TNC)

- Collaborating on multidisciplinary 5-person team to create research intensive deliverables including 25-page finalized report, ESRI StoryMap, 7-minute outward facing documentary, and 15-minute public presentation.
- Built a suitability model from 15+ geospatial layers and 200+ presence points using Maxent and ArcGIS Pro.
- Developing connectivity model using Omniscape and Circuitscape to determine probable corridors and barriers to movement within the JLDP and across the Central and Southern California coastline.

RESEARCH EXPERIENCE

Data Visualization Contractor – Michael Petroni Consulting, Remote (2/14/2022 – Present)

- Assisting in the creation of an individualized air pollution profile prototype by developing and evaluating environmental risk communication products such as graphs, reports and reproduceable software in R.
- Troubleshooting, streamlining, and tidying several Rmarkdown documents for proof of concept.

Participant – NASA DEVELOP National Program, Fort Collins, CO [Remote] (6/2021 – 8/2021)
Science Systems and Applications, Inc. (SSAI)

- Research-intensive 10-week group project developing model to detect invasive cheatgrass using Landsat and PRISM satellite data, and in collaboration with client USDA Forest Service.
- Built scripts using JavaScript language in Google Earth Engine and utilized Random Forest to develop models predicting and detecting post-burn invasive cheatgrass distribution at the Cameron Peak Fire site.
- Utilized ArcGIS Pro and ArcMap tools to create compelling visuals for finalized presentations and reports.

Graduate Researcher – La Kretz Center for Research at Sedgwick Reserve, Santa Barbara, CA (10/2020 – 6/2021)

- Collected local weather data during prescribed burn (Rustici II) testing burn severity of grazing methods.
- Developed protocol, implemented research sites, and collected oak census data via Wildnote app to monitor prescribed burn at Sedgwick Reserve and Midland School under Dr. Frank Davis.
- Oversaw and maintained camera traps and camera trap data of fauna throughout Sedgwick Reserve.
- Utilized ArcMap to digitize geology and land use maps of Dangermond Preserve into applicable GIS layers.
- Scripted protocol in Rmarkdown to streamline Wildnote data management collected by visiting researchers.