

## Nikole Vannest – Page 2

### Lab & Field Technician – Sierra Nevada Research Institute, Merced, CA (1/2019 – 7/2020)

- Hindcasted forest model Sortie-ND parameterized to mimic the Sierra Nevada forests under RCP 8.5 climate change scenarios and built R scripts to analyze output of model runs.
- Authored [research paper](#), *Modeling the forest dynamics of the Sierra Nevada under climate change using SORTIE-ND*, demonstrating novel Sortie-ND behaviors and outcomes (Annals of Forest Science, 2021).
- Showcased model output using R to create visuals utilized in completing 32-page research paper and presented findings at 2020 ESA conference by Dr. Emily Moran.

### Field Technician – Colorado State University, Fort Collins, CO (5/2015 – 8/2015)

- Performed tree census within multiple national forests in Northern and Central Colorado concerning the bark beetle epidemic and regeneration of trees in previously harvested stands.

### Research Assistant – Forestry Lab at Michigan State University, East Lansing, MI (1/2013 – 5/2014)

- Launched independent research study and written work focused on the relationship between soil nutrients and the density and abundance of arbuscular mycorrhizal fungi (AMF).
- Successfully identified genera of AMF spores via wet sieve and decant method on 100+ samples.

## VOLUNTEER EXPERIENCE

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### Volunteer – Peace Corps, Senegal, West Africa (9/2015 – 11/2017)

- Peer-elected as Podor region's Work Zone Coordinator, entailing management of fellow volunteers, facilitating collaboration within work zone, development of future volunteer sites, and liaison between headquarter staff and regional volunteers.
- Wrote 3 successful small grants securing \$1500/each in funding for trainings and camps throughout service.
- Designed, organized, and lead large training of local farmers on climate change, deforestation, and tree care techniques including grafting, transplanting, etc.

## ADDITIONAL EXPERIENCE

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### Plant Health Care Technician - The Davey Tree Expert Company, Littleton, CO (8/2018 – 1/2019)

Demonstrated arborist tree climbing techniques to perform in-tree maintenance.

### Greenhouse Assistant - Spring Meadow Nursery, Grand Haven, MI (5/2014 – 5/2015)

Performed regular maintenance of electronic watering, lighting, and pesticide application systems as well as collected data and monitored flowering shrub trials intended for market release.

### Administrative Assistant – Kellogg Biological Station, East Lansing MI (8/2013 – 5/2014)

Tended to hybrid rice plants in MSU greenhouses and represented and promoted KBS at MSU career fairs.

### Learning Assistant – Michigan State University, East Lansing MI (8/2012 – 12/2012)

Wrote and graded quizzes and exams for Dr. David Skole's Forestry and Environmental Science course.

### Environmental Intern – Environment Michigan, East Lansing MI (8/2011 – 12/2011)

Published six letters advocating for the Clean Air Act in newspapers across Michigan. Organized databases, updated websites, and photographed protests and interviews.

## SKILLS, AFFILIATIONS, & CERTIFICATIONS

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**Coding Languages:** R, Python, C++, JavaScript, Julia

**Geospatial Tools:** QGIS, ArcGIS Software (ArcMap, ArcGIS Pro, Arc Online, Esri StoryMap), Circuitscape, Maxent, Marxan, Omniscape, LANDIS

**GUI models and other computer skills:** RStudio, Sortie-ND Forest Model, Software for Assisted Habitat Modeling (SAHM), Random Forest, Generalized Linear Model, Boosted Regression Trees, FRAGSTATS, Omniscape, WordPress, Google Suite, Eclipse IDE, Microsoft (Excel, PowerPoint, Word), Wildnote

**Languages & Certificatons:** Pulaar (Northern Senegal dialect) | TEFL certified (2018)