Stephen Huysman

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shuysman

Professional Summary

A versatile and detail-oriented professional with a Master's degree in Biological Sciences and a unique background spanning field botany, geospatial data science, and hands-on technical management. I am a natural problem-solver, passionate about applying a scientific mindset to complex challenges, whether it involves building a predictive model for a national park, restoring a sensitive ecosystem, or managing the operations of a small business. Seeking opportunities where I can leverage my diverse skillset to make a tangible impact.

Skills

Botany & Field Science	Botanical Surveying, Plant Identification (Dichotomous Keys), Plant Propagation, Invasive Species Control, GPS Navigation, 4WD & UTV Operation, Chainsaw Operation, Data Collection & Management, Scuba (PADI Advanced Open Water)
Geospatial & Data Science	ArcGIS Pro & ArcMap, QGIS, R & Python Geospatial Ecosystems, Predictive Modeling, High-Performance Computing (HPC), Remote Sensing, LiDAR Data Processing
IT & Systems	Linux System Administration, IT Infrastructure Management, Python, R, SQL, Git, Docker, Django
Hands-On & Mechanical	Vehicle & Equipment Maintenance (Gasoline & Diesel), Electrical & Electronic Systems (Residential Wiring, Custom LED Lighting, Component Repair), Greenhouse Management, Carpentry
Languages	English (Native), Spanish (Professional Working Proficiency), Japanese (Basic)

Education

2022–2025 **Montana State University**, *M.S. Biological Sciences*, Bozeman, MT
Thesis—Mapping Climate and Disturbance Refugia for Conservation of Whitebark Pine

2007–2011 **Cornell University**, *B.S. Plant Sciences, cum laude*, Ithaca, NY

2009–2010 **University of Tasmania**, *Study Abroad*, School of Plant Science, Hobart, Australia

Professional Experience

6/2024–Present **Project Employee**, *Northern Rockies Conservation Cooperative*, Bozeman, MT

- Builds predictive geospatial models using climate and ecological data to inform land management strategies for the National Park Service.
- Performed high-resolution spatial analysis across Yellowstone and Grand Teton National Parks to identify sites with optimal microclimates for whitebark pine restoration.
- Created and implemented a wildfire danger rating system to forecast near-term risk and project long-term trends for the Middle and Southern Rockies ecoregions.

8/2022–6/2025 **Graduate Research & Teaching Assistant**, *Montana State University*, Bozeman, MT

- Created habitat suitability maps for restoration planning using geospatial analysis of climate and landscape data.
- Developed GIS-based tools to accelerate identification of ideal planting microclimates for whitebark pine restoration.
- Led undergraduate laboratory sections for Plant Systematics and Seed Plant Identification, guiding students through practical exercises and lecturing on core concepts.

3/2022–7/2022 **Biological Science Technician**, *National Park Service*, Brooklyn, NY

- Conducted surveys and monitoring for threatened and endangered plant species, including seabeach amaranth.

- Performed public outreach and education to promote shared stewardship of sensitive natural resources and ensure visitor compliance with park regulations.
- Monitored threatened and endangered shorebird populations, located and protected active nests, and collected field data on breeding success.

5/2021–10/2021 **Riparian Botanist**, *Great Basin Institute*, Bend, OR

- Led botanical surveys on public lands to monitor native and invasive plant communities, assess ecosystem health, and inform land management decisions.
- Identified native and non-native flora to the species level using dichotomous keys. Collected herbarium specimens of rare plants and documented locations of noxious weeds.
- Collected and managed detailed field data on species inventory, soil stability, and water quality. Produced reports to support resource management and endangered species act (ESA) compliance.
- Coordinated field logistics and scheduling for a small team in remote, challenging backcountry environments.
- Safely operated 4WD trucks and UTVs on rough, off-trail terrain to access remote sample sites.

1/2019–5/2021 **Senior Programmer/Analyst**, *Stony Brook Medicine*, Stony Brook, NY

- Administered Linux-based research computing infrastructure, including a 192-core HPC cluster.
- Developed digital patient intake solution to automate data entry into Cerner EMR system.
- Developed web applications to automate clinical research and office tasks.
- Supervised and mentored student programmers, providing guidance and technical leadership.

6/2016-12/2016 **Herbarium Intern—Mycology**, *New York Botanical Garden*, Bronx, NY

- Digitized and uploaded scientific collections of fungi to the Mycology Collections Portal (MyCoPortal) for open-access use by researchers.
- Captured high-resolution images of specimens and transcribed collection information to complete database records.
- Georeferenced specimen collection data for use in GIS databases.

6/2006–1/2019 **President (2012–2019) & Horticulturist (2006–2012)**, *Peter Huysman Landscaping Corp.*, Bayville, NY

- Led a team of four horticulturists, directing all business operations including project management, client relations, and grounds maintenance for residential and estate properties.
- Managed invasive plant populations and controlled noxious weeds using manual and chemical methods.
- Diagnosed plant pests and pathogens, implementing Integrated Pest Management (IPM) strategies.
- Managed a 1000 sq. ft. greenhouse, including propagation and care of a diverse tropical container plant collection.
- Utilized GIS to map and analyze soil data to guide data-driven property management recommendations.
- Operated and maintained a fleet of work vehicles and power equipment, including chainsaws and trimmers.

12/2011–7/2012 **Conservation Volunteer**, *Cambugán Foundation*, Quito, Ecuador

- Supported cloud forest restoration by collecting seed and propagating native plants in a conservation nursery.
- Conducted wildlife and botanical surveys. Deployed and monitored camera traps and collected herbarium specimens.