Ryan Strobel

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Professional Summary

Data scientist and biologist applying computational tools to answer ecological and genetic mysteries, with a focus on native bees. Experienced in and passionate about field research, geospatial analysis, and species identification. Skilled user of Python, R, SQL, machine learning, and database management techniques as tools to support scientific discovery.

Education

M.S. in Data Science, Willamette University | *Salem, OR* **(Expected 2025)**
B.S. in Data Science, Willamette University | *Salem, OR* **(2024)**
Master Melittologist Certificate, Oregon Bee Atlas - Oregon State University | *Corvallis, OR* **(2022)**

Areas of Expertise

- Python
- R / RStudio
- SQL / PostgreSQL
- Excel / Google Sheets
- Powerpoint
- Railway
- Git / Git Bash / GitHub
- Geospatial Analysis
- Web Scraping
- Specimen Collection
- Computer Vision
- Machine Learning
- Database Engineering
- Species Identification
- Web Hosting
- Species Distribution Modeling

Relevant Professional Experience

Biostatistics TA, Willamette University | *Salem, OR* **January 2025 – May 2025**
- Introduced Biology students to RStudio and answered questions during hands-on coding sessions in class and scheduled office hours
- Clarified unintuitive statistics topics for students using online visual tools like StatKey and VassarStats
- Improved student performance by leading exam review sessions

Wild Bees of Montana Project, Montana State University | *Bozeman, MT* **June 2024 – August 2024**
- Contributed over 7,500 bee specimens to Montana's largest Arthropod collection
- Targeted extremely remote areas to fill gaps in the previous survey records
- Ensured the long-term usability of the collected data by keeping meticulous field notes

Python Section Leader, Willamette University | *Salem, OR* **August 2022 – May 2024**
- Led weekly project-based workshops for introductory Python students
- Assessed comprehension of key skills by grading large project submissions
- Supported students' success by hosting review sessions prior to exams and assisting with homework outside of class hours

Science Collaborative Research Program, Willamette University | *Salem, OR* **May 2023 – November 2023**
- Analyzed the role that invasive plant species play in the modern fire regimes of the Mojave desert
- Modeled plant species and wildfire distributions using public occurrence data and local climate variables
- Represented the Life Science department with a slideshow presentation at a research conference

Projects

Briana Lindh Bee Lab, Willamette University | *Salem, OR* **March 2022 – Present**
- Performing Capstone Research on Oregon's *Melissodes* longhorn bees
  - Identifying evolutionary relationships using genetic sequence information
  - Using machine learning to detect morphological differences in wing vein images
  - Locating rare bee habitats with geospatial analysis of potential host plant occurrences
  - Publishing a reference tool to assist with specimen management and species identification