# **Andrew Hayden Morris**

andrewmorris@mailbox.org  $\cdot$  Personal Website  $\cdot$  Github  $\cdot$  LinkedIn

# **EDUCATION**

PhD Biology, (2022) University of OregonMS Soil Science, (2017) The Pennsylvania State University

BS Plant Sciences, (2014) Cornell University

Eugene, OR, USA State College, PA, USA Ithaca, NY, USA

#### RELEVANT EXPERIENCE

# Researcher in Big Data and Precision Medicine

Postdoctoral Scholar, Centre for Precision Psychiatry, University of Oslo

Mar 2024 - Present Oslo, Norway

- Analyzed large-scale datasets from Norwegian health registries combining genetic data with electronic health records to model age of onset for disease across tens of thousands of subjects
- Developed clear visualizations and statistical models for individualized risk prediction
- Collaborated with domain experts in oncology, genetics, and epidemiology to define hypotheses and develop statistical analyses
- Supported the development of a precision medicine platform to be integrated into the Norwegian healthcare system

# Researcher in Animal Microbiomes and Aquaculture Systems

Postdoctoral scholar, Institute of Ecology and Evolution, University of Oregon Visiting scholar, Department of Biotechnology and Food Science, NTNU

Mar 2022 - Dec 2023 Eugene, OR, USA Trondheim, Norway

- Analyzed aquaculture datasets investigating the impact of environmental factors (antibiotic treatment, stocking density) on fish health and growth outcomes
- Conducted comparative analysis of recirculating aquaculture systems between Oregon and Norwegian facilities, established data collection protocols for water quality and fish health monitoring
- Conducted meta-analysis of 50+ unstructured datasets from published reports on animal microbiomes and presented findings in *Nature Microbiology*
- Collaborated with international teams of biologists, aquaculture experts, and data scientists to translate research questions into analytical approaches

#### PhD Research Fellow

Institute of Ecology and Evolution, University of Oregon

Aug 2017 - Mar 2022 Eugene, OR, USA

- Analyzed environmental datasets from dozens of field sites across Brazil and Gabon, identifying patterns in soil characteristics and greenhouse gas emissions
- · Developed statistical models integrating laboratory experiments with field observations
- Uncovered insights that contributed to \$3 million USD in funding from the U.S. National Science Foundation
- Collaborated with interdisciplinary teams of ecologists, microbiologists, and soil scientists in Brazil, Gabon, and the US

#### MS Research Fellow

Aug 2015 - Jul 2017

Department of Ecosystem Science and Management, Penn State University

State College, PA, USA

- Collaborated with agricultural industry partners to design and implement experiments at research stations and on commercial farms
- Developed statistical models to understand the relationship between on-farm practices and environmental impacts through nutrient pollution and greenhouse gas emissions
- Presented data-driven recommendations to farmers, industry partners, and extension agents to facilitate informed decision making

# **TECHNICAL SKILLS**

#### **Statistical Analysis & Programming**

- R Expert level: statistical modeling, data manipulation, visualization (ggplot2) and package development
- Python Intermediate: Proficient in data processing, statistical analysis and scripting
- **SQL** Basic proficiency in queries, syntax and database concepts; extensive experience with equivalent data manipulation in R (dplyr)
- **Statistical Methods** Extensive experience with regression modeling, mixed-effects models, multivariate analysis, and experimental design

#### **Data Visualization & Communication**

- · Visualization Advanced skills with ggplot2, creating publication-quality graphics and interactive plots
- · Data Storytelling Experienced in translating complex statistical findings for diverse audiences
- Technical Writing Skilled in documenting analytical methods and presenting results in scientific publications

# **Data Management & Collaboration**

- Version Control Experienced with Git and GitHub for collaborative analysis projects
- Cloud Platforms Experienced with high-performance computing environments (Slurm, Tjenester for Sensitive Data)
- Unix/Bash Proficient in command-line tools and shell scripting for automation

#### **LANGUAGES**

English: Native speaker with excellent written and verbal communication

**Norwegian**: Completed formal A1 and A2 courses with structured textbook study through B1/B2. Daily practice in reading, writing, listening, and speaking.