Andrew Morris, PhD

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

EDUCATION

PhD Biology, (2022) University of Oregon

Eugene, OR

MS Soil Science, (2017) The Pennsylvania State University

State College, PA

BS Plant Sciences, (2014) Cornell University

Ithaca, NY

RELEVANT EXPERIENCE

Researcher in Big Data and Precision Medicine

Mar 2024 - Present Oslo, Norway

Postdoctoral Scholar, Centre for Precision Psychiatry, University of Oslo

- Tested models predicting age of diagnosis for cancer, dementia, and cardiovascular disease using genetic and clinical data from Norwegian public health registries and biobanks
- Developed software packages to standardize risk prediction for multiple diseases across programming languages (R, Python, Matlab)
- Implemented models using containerized software (Docker, Singularity) in a highperformance cloud computing environment
- Organized the 2024 Bioinformatics Workshop Week in Oslo, Norway with 11 workshops, and over 100 participants

Researcher in Quantitative Genetics

Mar 2022 - Dec 2023

Postdoctoral scholar, Institute of Ecology and Evolution, University of Oregon

Eugene, OR, USA

- Analyzed the heritability of microbiomes across humans and other hosts, published in *Nature Microbiology*
- · Organized Symbiosis Theory Workshop with international collaborators in Eugene, OR, USA

Visiting Scholar

Sep 2022

Department of Biotechnology and Food Science, NTNU

Trondheim, Norway

 Conducted sampling of water and zebrafish from aquaculture facilities for DNA extraction and sequencing of environmental and host-associated microbiome DNA

PhD Research Fellow

Aug 2017 - Mar 2022

Institute of Ecology and Evolution, University of Oregon

Eugene, OR, USA

- Received multiple grants and awards including a \$3 million (USD) grant and a 5-year research fellowship from the U.S. National Science Foundation
- Developed bioinformatic pipelines for the analysis of microbiome data in a cloud computing environment using bash, Python, R, and slurm.
- Supervised prospective PhD students in lab work, data analysis, and communication
- Instructor for courses in introductory biology, genetics, and scientific computing

MS Research Fellow

Aug 2015 - Jul 2017

Department of Ecosystem Science and Management, Penn State University

State College, PA, USA

- Conducted field trials with industry partners at research stations and on farms to test strategies to reduce nutrient losses
- Delivered data analysis results using linear mixed models and machine learning (random forests) in R that guided on-farm practices to balance profitability with environmental impacts
- · Presented results to diverse stakeholders including industry partners, farmers, and scientists

LANGUAGES

English: Excellent skills, both written and spoken (mother tongue)

Norwegian: Basic understanding both written and oral. Have taken 3 months of classes at Alfaskolen at the A0-A2 level. Highly motivated to continue classes (starting B1 in the winter) and self-sudy.

SKILLS & TOOLS

Languages and Tools

- Expert in data processing, modeling, and plotting using R
- Experienced with version control using git, Github.
- Bash, Unix, cloud computing systems (slurm)
- Basic proficiency in Python
- GNU make for workflow management

Management & Communication

- Skilled in communicating both verbal and written to diverse stakeholders
- Comfortable leading project teams and organizing workshops
- Supervised multiple trainees and taught courses

Selected Coursework

- Genome-Wide Association Studies
- Machine Learning for Image Analysis
- Strategies and Techniques for Analyzing Microbial Community Population Structures
- Advanced Biological Statistics I & II

REFERENCES

- · Oleksandr Frei, University of Oslo
- Prof. Brendan Bohannan, University of Oregon, bohannan@uoregon.edu +1
- Prof. Jason Kaye, Penn State University, jpk12@psu.edu +1