Andrew Morris, PhD

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Located in Oslo, Norway

EDUCATION

PhD Biology, (2022) *University of Oregon* — Eugene, OR, USA

MS Soil Science, (2017) *The Pennsylvania State University* — State College, PA, USA

BS Plant Sciences, (2014) *Cornell University* — Ithaca, NY, USA

RELEVANT EXPERIENCE

Researcher in Big Data and Precision Medicine
Mar 2024 - Present

Postdoctoral Scholar, Centre for Precision Psychiatry, University of Oslo — Oslo, Norway

- 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 high-performance 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, Supervisor, University of Oslo, oleksandr.frei@medisin.uio.no Tel: +47 417 94 331
- Prof. Brendan Bohannan, University of Oregon, bohannan@uoregon.edu Tel: +1 541 346 4883
- Prof. Jason Kaye, Penn State University, jpk12@psu.edu Tel: +1 814 863 1614