DANIEL HINTZ

+1(307) 761-4742 ◇ dhintz1@uwyo.edu ◇ Laramie, WY

LinkedIn ◇ GitHub ◇ Website

EDUCATION

University of Wyoming *August 2020 - Present*

MS in Statistics

Thesis Title: Exploring information loss in transformer embedding spaces for enhancing AI engine robustness under a Inverse Reinforcement learning framework for predicting the trajectory of colorectal cancer mutations.

MS in Economics

Thesis Title: How Does Renewable Portfolio Standards Impact Carbon Emissions at the State Level, by Sector?

WORK EXPERIENCE

Graduate Researcher at UWYO's Advanced Research Computing Center (ARCC) Laramie, Wyoming

Part-time *July 2023-present*

Collaborating with the Mayo Clinic, Argonne National Labs, the NCAR Wyoming Supercomputing Center (NWSC), Oracle, Wyoming INBRE, and Wyoming Public Health Laboratory to develop a pipeline using Inverse Reinforcement Learning (IRL) to predict the mutation trajectory of colorectal cancer for Mayo Clinic patients.

Western Ecosystems Technologies (WEST) Internship Laramie, Wyoming

Full-time *May 2023-August 2023*

Generated Time series forecasts predicting Jackson Lake level elevation informing Colter Bay Marine operations and expenditures for updating infrastructure on behalf of the US National State Park Service.

Wyoming Public Health Laboratory Externship Laramie, Wyoming

Full-time *August 2022-May 2022*

Adapted bioinformatic pipelines for taxonomic profiling of metagenomic data

Wyoming Public Health Lab's Bioinformatics Internship Cheyenne, Wyoming

Full-time *May 2022-August 2022*

Building Docker Containers for Bioinformatic Pipelines

TEACHING

Nextflow Workshop Laramie, Wyoming

half-day, co-lead *April 12, 2022*

Workshop title: "Building Parallelizable Pipelines for Scientific Computing"

Devtools for Scientific Computing Laramie, Wyoming

half-day, lead *November 16, 2023*

Workshop title: "Devtools for Scientific Computing, A Introduction to Bash, Conda, Git and VS-code"

SKILLS

Python: proficiency with pandas, scikit-learn, PyTorch, TensorFlow, data wrangling, visualization, exploratory data analysis and comfortable with IDE's (VS Code, PyCharm, Jupyter notebooks)

R: loops, family of apply functions, writing functions, package development, shiny, data wrangling and data visualization

Production Coding: nextflow, Unix, git, conda, docker, singularity, SQL and dashboards

Modeling and Inference: Design and Analysis of Experiments, Multivariate Statistics, Data Mining, General Linear Models, Bootstrapping, Time Series, Random Forests, Support Vector Machines, Deep Learning (PyTorch), Geospatial statistics, Natural Language Processing, Feature Engineering, and Cloud Computing

REFERENCE

Dr. Tim Robinson: tjrobin@uwyo.edu