Position Summary:

Title: Graduate Assistant
Department: Mathematics and Statistics

Hours per Week: 10 hours/week

Location:
- [X] Portland
- Gorham
- [ ] LAC
- [ ] Online/Distance

Duration:
- [X] Full Academic Year
- [ ] Fall Semester
- [ ] Spring Semester
- [ ] Summer Semester

Total Stipend: 4500
Monthly Stipend: 500
Scholarship Amount: 3000 (in-state) / 5000 (out-of-state)

Supervisor Name: Weston Viles
Supervisor E-Mail: weston.viles@maine.edu
Supervisor Phone: 2077804225

Position Details:

Statement of Job and Essential Functions:
The graduate student awarded the proposed assistantship would be under the supervision of Dr. Weston Viles in the Department of Mathematics and Statistics. The awardee would join an active collaboration with Dr. Viles and his research partners at the Geisel School of Medicine at Dartmouth in their ongoing research of the infant gut microbiome. Under the supervision of Dr. Viles, the graduate assistant would assist the research group in identifying features of the infant gut microbiome that are associated with health and disease of the host. Additionally, the graduate research assistant would assist the group in making prediction of health outcomes based on microbiota therapies.

Dr. Viles has developed a prototype of a machine learning algorithm for the prediction of immune responses to gut microbiota states. The graduate research assistant would execute the algorithm on real data collected as part of the New Hampshire Birth Cohort at Dartmouth and also on simulated data to evaluate the performance of the algorithm and interpret the corresponding results. The graduate research assistant would have hands-on experience in all aspects of data analysis research, from model development and evaluation to the interpretation and exposition of results. This work is intended to lead to a peer-reviewed publication.

Supervisory Responsibilities:
None

Budget Responsibilities:
None

Public and Professional Activities Related to Job Performance:
None

Internal Contacts
None
External Contacts
None

Knowledge, Skills, and Abilities:
The graduate assistant awarded the assistantship should have a sufficient background in mathematics, statistics, and computer science to understand, interpret, and implement methods of modern data analysis. Must be able to communicate mathematics, statistics, and data science concepts at a professional level and be skillful in at least one of the R, Python, or MATLAB programming languages.

Required Qualifications:
The successful candidate must be enrolled in the MS in Statistics, the MS in Data Science, or the MS in Computer Science program or a sufficiently quantitative graduate program.

Preferred Qualifications:
A BA or BS in mathematics, statistics, computer science, or data science.

To Apply:
Submit your resume and cover letter via email to Weston Viles (weston.viles@maine.edu).