

From: Kimberly VanderWaal
Subject: Post-doc in animal population health / machine learning

Postdoctoral associate in animal population health and/or machine learning
Department of Veterinary Population Medicine
University of Minnesota

The VanderWaal lab is seeking one-two post-docs focused on animal population health (livestock and/or wildlife) and or/machine learning

One post-doc is sought to develop and validate models for predicting the spread of livestock pathogens at the landscape level using spatial analysis and machine learning techniques and data on between-farm animal movements and disease incidence. Candidates should be able to demonstrate experience in machine learning and spatial analysis/GIS.

A second post-doc is sought to develop approaches to monitor aggregated veterinary diagnostic data over time, including implementing systems to detect anomalies in the data that may indicate emerging health concerns in livestock/wildlife populations. Data sources include working with clinical data from wildlife rehabilitation centers (~14,000 cases per year) or diagnostic data on livestock pathogens.

Position: This position/s will be an annually renewable, non-tenure track, 100% time appointment with focus on analytic epidemiology and machine learning.

Location: Veterinary Population Medicine Department, College of Veterinary Medicine
University of Minnesota

Requirements:

For both positions, candidates must have completed a Ph.D. degree by start date. Proficiency in programming with R or other programming language is required, and strong organizational, quantitative analysis, and writing skills are necessary. Desired qualifications include excellent oral/written communication; leadership and interpersonal skills; previous experience with machine learning approaches; and demonstrated ability to work in teams. Candidates with a background in epidemiology, veterinary medicine, statistics, management of large datasets, and network analysis will have preference.

Duties:

- 1) Conduct research and provide technical assistance to the PI, students, and trainees on data analysis, and other miscellaneous problems related to epidemiology and/or data analytics.
- 2) Collect and organize data for research activities. Collaborate with the PI in the generation and testing of research hypotheses and data analysis, writing of papers, grants, and reports, and preparation of presentations and lectures.
- 3) Participate in laboratory meetings, seminars, graduate and undergraduate lectures, and conferences as needed.
- 4) Perform miscellaneous duties as assigned by the PI including, but not limited to, ordering supplies and organization and coordination of meetings and projects.
- 5) Maintain frequent communication with other faculty and collaborators, including potential travel to meet with collaborators and collect data.

Salary: Commensurate with experience and qualifications.

Start Date: When filled.

Application: Apply online at: employment.umn.edu, job number 320146

Review of applications will begin immediately and continue until the position is filled. Applications should include: (1) a cover letter describing research interests and fit with this position, and a possible start date, (2) a curriculum vitae, and (3) names of three references. Please contact Dr. Kim

VanderWaal (kvw@umn.edu) for further details.

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