Software developer for The Rapid Access Biosecurity (RAB) app™ at NC State

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Overview: The Machado Lab is looking for a software engineer to play a key role in the further development of RABapp™ which integrate swine data and disease spread modeling into a tool used by 14 states and 50 pig production companies in the U.S. For more information about RABapp™ visit our website (https://machado-lab.github.io/rabapp/)

This individual will be the lead software developer on a team of scientists working to refine tools that will also be expanded for other livestock systems. A successful candidate will need to demonstrate strong initiative and leadership in both software development and the ability to work collaboratively on challenging problems. This is a research programmer position.

This is an opportunity to be part of a fast-paced, multidisciplinary team including epidemiologists, infectious disease modelers, and computer science and to collaborate with the state and national swine industry. The team places a strong emphasis on innovative, collaborative research and the communication of analyses to stakeholders.

The ideal candidate will:
- Be highly motivated, with strong organizational and communication skills and excellent problem-solving skills.
- Have experience developing and using software to solve quantitative problems, managing a complex codebase, acting as a steward of good coding practices.
- Be a team player who is able to work in a fast-paced environment with a multi-disciplinary team

Minimum Qualifications:
- Experience (not necessarily professional) building UIs.
- Experience with REST APIs.
- Relational databases, preferably PostgreSQL.
- Experience collaborating with other developers using Git.

Preferred Qualifications:
- Experience with GIS.
- Experience with Python or R.
- Experience building data pipelines to process external sources into a centralized data warehouse.
- Strong critical thinking and problem-solving skills.
- Ability to work independently on data analysis and reporting.
- Ability to work well with a diverse team.

Environment: The Machado Lab develops and deploys epidemiological methods which fully integrate disease evolution, animal movement, spatial processes to estimate disease transmission

and spread. Ultimately, we work in the development of new computational tools for both tracking spread and prescribing non-pharmaceutical interventions regimens. New members, will work in a group with a strong background in epidemiology, disease spread modeling, evolutionary epidemiology, social networks and mathematical modeling. The new member will benefit from the national and international collaboration networks that our lab has developed.

How to apply: To be considered, submit a cover letter describing your skills and qualifications, a resume or CV. The cover letter should include a link to a public GitHub.

Materials should be submitted to Gustavo Machado, gmachad@ncsu.edu