Postdoctoral Research Positions in Causal Inference and Data Science for Environmental Health Policy

**Description:**
The Department of Biostatistics at the Harvard T.H Chan School of Public Health invite applications for Postdoctoral fellow positions to develop causal inference methods for the analysis of large-scale environmental health data with anticipated start dates in Summer/Fall 2019 (flexible). The position is in the lab of Dr. Francesca Dominici, Clarence James Gamble Professor of Biostatistics, Population and Data Science and co-Director Harvard Data Science Initiative. Applicants should have an interest in developing statistical methodological innovations grounded in environmental health, climate change and policy applications. The Department of Biostatistics is a multidisciplinary research department at the forefront of biostatistics and data science. The specific position involves methodological work in the areas of: (1) Bayesian causal inference, (2) Machine learning, and (3) Causal inference using modern optimization approaches.

The Post-doctoral fellow will contribute to the effort of:
• Developing innovative methods for causal inference in the context of large observational data.
• Analyzing environmental health effects in big data.
• Developing and disseminating software for reproducible research.
• Creating innovative web-based data visualizations.
• Writing scientific articles and research proposals.

**Basic Qualifications:**
Doctoral degree in Statistics, Biostatistics, Computer Science, or related field. Familiarity with causal inference methods using observational data; strong programming skills, especially for conducting simulation studies; and experience analyzing real data is preferred. Excellent communication and writing skills desired.
The ideal candidate is an independent, solution-oriented thinker with a strong background processing very large data sets, applying analytical rigor and developing statistical methods, and driving toward actionable insights and novel solutions.

• PhD in Statistics, Biostatistics, Computer Science, Data Science
• Strong background in statistics and computational methods.
• Interest in developing open-source software, reproducibility.
• Experience in handling very large spatial datasets.
• Familiarity with multiple data science tools and ability to learn new tools as required.

**Additional Qualifications:**
• Demonstrated ability to contribute to research of new statistical approaches, inference algorithms.
• Experience with version control systems, in particular Git and GitHub.

**Application Procedures:**
To apply for this position, submit your application through the Harvard ARiES: Academic Recruiting Information eSystem at the following link:
Additional Information:
Harvard University seeks to find, develop, promote, and retain the world’s best scholars. Harvard is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority candidates are strongly encouraged.

Information on resources for career development and work/life balance at SPH can be found at: Career development and work/life balance.