POSTDOCTORAL FELLOWSHIP
DATA SCIENCE for
WATER QUALITY

Research Description: We are looking for qualified, creative and motivated postdoctoral scientists to lead research on the applications of machine learning to water quality. The postdoctoral fellow will be part of a vibrant new initiative for human-centered artificial intelligence (HAI) at Stanford and will work with an interdisciplinary team of faculty with expertise in water quality, hydrology and computer science.

To address the growing crisis in our water systems, the postdoctoral fellowship will focus on the integration of environmental data sets and physics-based models using machine learning. The work will address two scales: California’s Central Valley and the continental U.S. and include several novel data streams, including geophysical imaging and new environmental sensors for water quality. The goal of the project is to develop flexible and predictive models of water quality to safeguard our drinking water.

Qualification and Experience:
• A PhD degree in science or engineering to be conferred prior to the start date
• Extensive knowledge of computer science and or data science, particularly applications of machine learning/artificial intelligence to environmental data sets, including remote sensing
• Experience with spatial analysis and knowledge of GIS approaches
• Ability to communicate effectively and collaborate across scientific domains
• Eagerness to publish research in scientific journals and present research at relevant scientific and agency meetings
• Background in civil or environmental engineering, water resources or hydrology is desired, but this is not a strict requirement

Application Materials: The application must include the following:
• A cover letter and contact information for three references
• A curriculum vitae
• A two-page research statement addressing the following points: (1) Describe two examples of how you have employed data science/machine learning to address import questions; (2) What skill sets and abilities would you bring to this project? (3) What skills and abilities would you hope to gain from working on this project?

All application materials should be emailed to kmaher@stanford.edu. Closing date is June 30 and ideal applicants will be available to start no later than September or October of 2019. This position is initially for one year and may be extended for up to three years depending on satisfactory progress and funding. Stanford is an equal employment opportunity and affirmative action employer.