Postdoctoral Position in Linking River Archetypes and Catchment Terrains in California

The University of California, Davis invites applications for a 2-year postdoctoral position to research linkages between river archetypes and catchment terrains. Landscape patterns and landscape elements such as hillslopes, streams, and riparian zones influence hydro-biogeochemical functional areas of watersheds as well as hydro-geomorphic dynamics and river ecosystem functions. Prediction of these landscape elements and their relationship across a wide range of scales is an important scientific problem with societal ramifications. The project team is working with the State of California on designing environmental flows for the diversity of hydrogeomorphic settings in the region. For a region of this size, it is essential to ascertain ways of using information from data rich locations and spatial scales to inform those that are data poor using training datasets. The project will involve multivariate statistical analysis, terrain analysis, data mining, and ensemble machine learning techniques. These will be applied to multiple spatial scales of terrain data, spanning scales from physiographic provinces down to local channel geomorphic units.

The successful candidate will interact with diverse researchers and stakeholders in academia and state agencies. Candidates must have a PhD in Applied Mathematics, Statistics, Civil Engineering, Physical Geography, Hydrology, Geology, Soil Science, Ecology, or related field. Extensive knowledge in terrain analysis, data mining, data management and analysis, and computer programming are preferred. The successful applicant may participate in some fieldwork, but this will depend on applicant preference and project needs. Proven experience with statistical analysis, geospatial analysis, and computer programming (including preferably R and/or Python), is preferred. Excellent data management skills and a journal publication track record are preferred. Salary and employee benefits will conform to the terms of the UC system-wide postdoctoral scholars' union. There are over 1,000 postdocs at UC Davis, providing a diverse, vibrant community of scholars.

The application deadline is **July 3, 2017**. There is some flexibility with the start date, ranging from August 1 to September 15, 2017. Please **send curriculum vitae and contact information for three references to Professor Greg Pasternack** by e-mail to gpast@ucdavis.edu. UC Davis is an Affirmative Action/Equal Opportunity Employer.