Machine Learning Post-Doctoral Position
Center for Western Weather and Water Extremes
Scripps Institution of Oceanography, University of California San Diego

Location: La Jolla, California.

To apply: Send a copy of your CV, cover letter, and contact information for three references to Luca Delle Monache (ldellemonache@ucsd.edu) and Agniv Sengupta (agsengupta@ucsd.edu).

Deadline: The position is available immediately. Applications received by 31 May will be given priority, but the position will remain open until filled.

The Center for Western Weather and Water Extremes, (CW3E; cw3e.ucsd.edu) is a research and applications center established in 2014 at the Scripps Institution of Oceanography by its Director, Dr. F. Martin Ralph. CW3E is developing and implementing weather and climate observations, numerical modeling, machine learning algorithms, and decision support tools focused on atmospheric, land-surface, and hydrologic conditions related to extreme weather events and their impacts. CW3E carries out its goals with a diverse network of research and operational partners at several other institutions across the U.S. and internationally. A key activity of the Center is the Forecast Informed Reservoir Operations (FIRO) initiative aimed at the development of methods and systems to aid reservoir operations for flood control, water supply, and sustainable ecosystems.

CW3E seeks a Postdoctoral researcher with a background in machine learning and related applications for environmental, ecological, and atmospheric sciences. The postdoc will apply their knowledge to develop novel, interpretable machine learning methods for assessing the impact of inundation on protected species habitats. The successful candidate will also support the development of related decision-support tools for potential uptake by the operational community. Additionally, the position may support the ongoing research and development at CW3E focused on AI-based as well as traditional modeling and prediction across a range of timescales – weather (lead times on the order of days), subseasonal (lead times of a few weeks), and seasonal (extended lead times of months). Individuals will be joining a group of experienced faculty, staff researchers, existing postdoctoral scholars, and graduate students.

Applicants should have 0-2 years of Postdoctoral experience or be nearing completion of their Ph.D. (estimated within 3-6 months) and be self-motivated and hard-working. Good written and verbal communication skills, including the ability to produce scientific publications and presentations and meet project milestones, are required. Strong analytical background with a Ph.D. in environmental science/engineering, atmospheric science, hydrology, computer science, or statistics is preferred.

Programming experience working in a Unix environment with experience in scripting languages such as Python, R, or Matlab is highly desirable, along with experience using common machine learning software (PyTorch, Tensorflow, Keras, Scikit-Learn, etc.). Successful applicants should be comfortable working independently with large code libraries and data integration schemes, utilizing large data sets, and producing visualizations.

Per normal postdoctoral appointment policies, all positions are envisioned as being initially for 2-years, with extension possible contingent upon performance and availability of funding. The University of California San Diego is an Affirmative Action / Equal Opportunity Employer (AA/EOE).