



The [Barnes Research Group](#) at [Boston University](#) is looking to hire multiple postdoctoral researchers in the broad area of Earth system data science. Both positions are exciting, high-impact opportunities at the forefront of the intersections of AI and earth system science, and will provide exceptional opportunities for a motivated researcher to push the boundaries of both AI for Science and the Science of AI. In pursuit of our goal to advance environmental science using the latest AI methods, we expect to work at the frontiers of data science, statistics, and cutting-edge AI model development as well as earth system discovery. Furthermore, Boston University provides the compute resources necessary to train and experiment with frontier deep-learning models at scale when necessary. When appropriate, the postdoctoral scientist will be encouraged to submit to top-tier ML conferences like NeurIPS, ICLR, and ICML in addition to traditional Earth system journal venues. The postdoctoral scientists will also support graduate students and early career researchers both within the Barnes group and across our collaborative teams.

Positions are in-person at Boston University's Charles River Campus, where the group sits in the new [Duan Family Center for Computing & Data Sciences](#) building and is jointly associated with [Computing & Data Sciences](#) and [Earth & Environment](#). This location offers the advantage of being situated within the vibrant university, college, and research environment of the greater Boston area. Positions are each for one year with the possibility for renewal of up to two additional years.

A. Postdoctoral Fellow in AI & Statistics for Earth Simulations

The postdoctoral scientist will conduct independent and collaborative research on AI tools for data-driven modeling of the Earth system. Research will focus on combining AI tools with methods from causality, information theory, and statistics to improve simulation of the coupled Earth system and quantification of its uncertainty.

B. Postdoctoral Fellow in AI for Near-Term Climate and Society

The postdoctoral scientist will conduct independent and collaborative research building and coupling AI simulations of the earth system with societal, health, and economic models to understand potential near-term implications of various climate trajectories, atmospheric perturbations (e.g., rocket launch and re-entry emissions), and proposed climate intervention strategies (SAI and other solar radiation management concepts).

Applications are rolling until the positions are filled. The desired start date is January 1, 2027 with some flexibility.

Job Qualifications

- Q1. PhD in climate science or atmospheric or oceanic sciences or data science/computer science or closely related fields
- Q2. Demonstrated expertise building, training and evaluating complex statistical or deep learning models for Earth, climate or environmental applications
- Q3. Demonstrated expertise in python, big data analysis, and HPC usage
- Q4. Demonstrated research experience working with reanalyses and earth system model output
- Q5. Demonstrated curiosity and creativity in research
- Q6. Demonstrated experience working both independently and collaboratively
- Q7. Demonstrated experience leading the analysis, writing and publication of scientific results in leading journals
- Q8. Strong oral and written communication skills
- Q9. Publication record commensurate with experience

To Apply, fill out the application form here: <https://forms.gle/MbZ1mNUgzmD24yoS9>

Requested application materials include

1. Cover letter stating interest in either, or both, of the positions outlined and *clearly stating alignment with each of the job qualifications listed above* (maximum of 2 pages)
2. Curriculum Vitae
3. Contact information for three professional references (we will let you know if they are contacted).

Questions? Send additional questions to [cgseds@bu.edu](mailto:cdseds@bu.edu) with the subject line "Postdoc Application: Earth System Data Science".

Boston University is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, natural or protective hairstyle, religion, sex, age, national origin, physical or mental disability, sexual orientation, gender identity, genetic information, military service, pregnancy or pregnancy-related condition, or because of marital, parental, or veteran status. We are a VEVRAA Federal Contractor.