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The Earth Data Science Corps: a model for teaching & learning environmental data science skills

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The Earth & Environmental Sciences (EES) produce vast amounts of data at a pace and on a scale that precipitate a need for EES researchers who are equipped with the technical data analytic skills required to work with large EES data sets. There are currently limited opportunities to learn these critical earth and environmental data science (EDS) skills leading to a gap between the demand for and supply of well trained data analysts, and contributes to a lack of diversity in the workforce. One model for meeting these demands is the NSF-supported Harnessing the Data Revolution (HDR) Earth Data Science Corps (EDSC) which has engaged with 60 students and 8 faculty partners from Minority Serving Institutions (MSIs) and Tribal Colleges and Universities (TCUs) in the 3 years of the program. Through online instruction and a 12-week paid internship that includes training in fundamental Python programming and geospatial science, we have demonstrated significant growth across different aspects of participants' technical Python and data science skills, as well as their science identity and sense of belonging to a larger population of data scientists. These findings will be discussed along with implications for teaching EDS to members from historically underrepresented communities.

Research

Education and Outreach

Data & Cyberinfrastructure

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