

Summer STEM Institute in Environmental Science and Data Science for Middle and High School Students at Pace University

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Abstract : Summer STEM Institute for Middle and High School Students at Pace University The STEM Collaboratory NYC® Summer Fellows Institute takes place on Pace University's New York City campus during July and provides the following key features for all participants: (i) individual meetings with Pace faculty to discuss and refine future educational goals; (ii) mentorship, guidance, and new friendships with program leaders; and (iii) guest lectures from professionals in STEM disciplines and businesses. The Summer STEM Institute allows middle school and high school students to work in teams to conceptualize, develop, and build native mobile applications that teach and reinforce skills in the sciences and mathematics. These workshops enhance students' STEM problem solving techniques and teach advanced methods of computer science and engineering. Topics include: big data and analytics at the Big Data lab at Seidenberg, Data Science focused on social and environmental advancement and betterment; Natural Disasters and their Societal Influences; Algal Blooms and Environmental Impacts; Green Cities NYC; STEM jobs and growth opportunities for the future; renewable energy and sustainable infrastructure; and climate and the economy. In order to better align the existing Summer STEM, Institute with the CCERS model and expand the overall network, Pace is actively recruiting new content area specialists from STEM industries and private sector enterprises to participate in an enhanced summer institute in order to 1) nurture student progress and connect summer learning to school year curriculum, 2) increase peer-to-peer collaboration amongst STEM professionals and private sector technologists, and 3) develop long term funding and sponsorship opportunities for corporate sector partners to support CCERS schools and programs directly.

Keywords : environmental restoration science, citizen science, data science, STEM

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