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Is Space R&D Truly Fostering A Better World For Our Future? (2)

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THE FEDERATION: CONNECTING STUDENTS AND DATA FOR R&D INSIGHTS

Abstract

The Data Science Federation (dsf.lacity.org) of LA is a collaborative research partnership between the City of Los Angeles and 18 Los Angeles area colleges and universities and 88 other cities. It was created to solve four problems simultaneously and at no cost: (1) tackle tough City problems with new ideas, diverse thoughts, and new technology; (2) recruit young people to City government by showing them the impact they can have in their neighborhood; (3) expose City staff to new approaches and technology; and (4) provide data science students real-world, resume-building, intractable problems and data that would have a big impact if solved. By tackling tough problems within the City, the Data Science Federation makes a difference in many areas in LA neighborhoods and expands on early work in data science and data-driven decision making for City government led by Mayor Eric Garcetti. Students and professors work with the City in flexible ways to meet their needs including: paid internships, inside a class setting, interactive partnerships with a class and the City, volunteerships, and internships for course credit. Each project involves a local university partner, a set of domain experts from the City, and data scientists from the City's Information Technology Agency. Each project produces either a predictive model or analysis that helps drive data-driven decision making within the City. It has been life-changing for students and transformed the City services those students have touched. It's homework for your hometown. This paper will showcase projects using space data including Predicting What We Breathe using NASA and ESA data on air quality, the U.N. Sustainable Development Goals using Earth science data shown at sdgdata.lamayor.org, and ShakeAlertLA (earthquake.lacity.org/shakealertla), an earthquake early warning system with 1,000,000 users.