**Why are you interested in attending Columbia University? We encourage you to consider the aspect(s) that you find unique and compelling about Columbia. (200 words or fewer)\***

Water is a basic necessity, but why is it not accessible to some people? I witnessed this first hand in Kei Island, a remote area in Maluku, Indonesia. While I’ve implemented a water filtration system in Kei and improved their collected-water quality, it didn’t really improve the residents’ water access; they still have to travel for miles to collect fresh water.

My hope is to improve their water accessibility. As I researched ways to do so, I found myself reading about Columbia 2013’s water distribution system in Ghana and how water can be conveniently supplied throughout the island by installing an electric-powered submersible pump and constructing a pipe pathway to avoid any contaminants. In order to delve deeper into this subject, I became interested in Research Scientist Lauren Josset's study, "The U.S. Water Data Gap," and her conclusions about how data analysis, both statistically and phenomenologically, should be applied to water monitoring and how machine learning tools could be used to quantify water use and make informed decisions about their water footprint.

I would love the opportunity to collaborate with Research Scientist Lauren Josset to do more in-depth studies into the forms of data analysis and incorporate data monitoring into the water distribution system.