

Undergraduate Research Positions – Spring 2024

Wolfand Research Group

I am seeking undergraduate research assistants to work on the following projects:

- 1) Atmospheric Deposition of Microplastics (2 students).** This research project aims to develop an innovative atmospheric sampler designed to collect microplastic particles during dry and wet periods. Students will fabricate an automated atmospheric deposition sampler device that will be installed and operated from the Shiley green roof. Preferred skills: interest or experience in mechatronics or fabrication; mechanical and electrical engineering students are encouraged to apply. *Co-advised with Dr. Kreipke, CSC.*
- 2) Low-Cost Solutions for Treating Roof Runoff (2 students).** This research project aims to test two types of treatment technologies for roof runoff. Students will collect water samples from roof runoff during storm events. Students will analyze samples for metals, nutrients, and microplastics. Preferred skills: interest or experience in environmental field or laboratory work; civil engineering students are encouraged to apply. *Co-advised with Dr. Poor.*
- 3) Wildfire Impacts on Mental Health (1 student).** This research project aims to quantify the impacts of wildfire smoke on mental health. The student will work collaboratively with another student researcher to build a statistical model of smoke and health impact data. Preferred skills: interest/experience in data science and coding in Python; computer science students or other engineers who enjoy working with data are encouraged to apply. *Co-advised with Dr. Dittrich.*

Time Commitment/Pay:

Approximate time commitment is 5-9 hours/week. Students are eligible for a semester stipend of \$1,250 or 3 course credits, which can be used for a technical or professional elective.

Requirements:

Students must be at least sophomore level with good academic standing. Preference may be given to students who are interested in continuing the work over the summer and/or into Fall semester of 2024.

Application

If interested, please email Dr. Wolfand (wolfand@up.edu) with your resume and a cover letter that describes your interest and qualifications for the position. Please note which project(s) you are interested in.