

Faculty Member Contact Information

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Contact Info	
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Department	Computer Science

1 Funded, 2 Unfunded URCA Assistant(s)

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

- No

How many hours per week will your student(s) be required to work in this position?
(Minimum is 6 hours per week; typical is 9)

- 9

Will it be possible for your student(s) to earn course credit?

- Yes, in CS495 Independent Study for 3 credit hours.

Location of research/creative activities:

- No location requirements.

Brief description of the nature of the research/creative activity?

- We will use Python and network science techniques to extract data from the NIH All of Us database, dealing with medical and social determinants of health that contribute to an epidemic of loneliness in a post-COVID world. We will write a paper on this topic, and attempt to submit it to a relevant publication.

Brief description of student responsibilities?

- Students will be responsible for cleaning and assembling data, and then performing experiments and machine learning on the data. These activities will involve skills such as Python Programming. Because we will be writing the results into a paper, students will also gain experience doing technical writing, researching related work, etc.

URCA Assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

- Students will learn about human subjects research and how to conduct it.
- Students will learn and use Python libraries, and will write programs using that language.
- Students will learn machine learning and network science techniques and how to apply them to real life data.
- Students will learn technical research and writing skills.

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours) please indicate all required days and times:

- Students will be expected to attend one research meeting per week. A time will be chosen that accommodates everyone's schedules. Generally students may set their own hours.

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

- No transportation requirements.

Must students have taken any prerequisite classes? Please list classes and preferred grades:

- I generally prefer students who have taken CS325 (Software Engineering) and CS340 (Algorithms and Data Structures) and done well in both.

Other requirements or notes to applicants:

- None.