Faculty Member Contact Information

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Contact Info	
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Department	Engineering

1 Funded, 3 Unfunded URCA Assistants

	This position is **ONLY** open to students who have declared a major in this discipline.	
	This project deals with social justice issues.	
	This project deals with sustainability (green) issues.	
	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
X	This mentor's project is interdisciplinary in nature.	

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

- Yes, All School of Enginering

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 hours

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

- No

Location of research/creative activities:

- Engineering Building

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

The purpose of the project is to learn the application programming interface (API) for the Boston Dynamics robot dog. This will entail working with the python-based API to program the dog to identify an object using the front-facing camera and then walk towards the object identified.

Brief description of student responsibilities?

The URCA Assistant will participate in the development of python-based software to control the robot dog in a pre-programmed set of tasks, ideally as described above – i.e. to identify an object and then walk towards the object. Prototyping will be done in python and GitHub will be used for revision control.

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?

By the end of the experience, the student will be able to:

1) Develop research software in a scientific-computing environment

2) Implement basic image recognition algorithms

3) Use source-code control systems, a critical skill for an engineer working in product development

<u>Requirements of Students</u>

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:

- There are no set times necessary and the schedule can accommodate the student.

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

- There are no transportation requirements necessary.

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

- There are no specific prerequisite classes for this position.

Other requirements or notes to applicants:

- The ideal applicant will have experience with Python and GitHub