**LESA Center URP Opportunity**

**Title:**  *User Interface Development*

**Location:**  @LESA, RPI  

**Type:**  URP  

**Duration:**  *Spring 2019* (possible summer 2019 continuation)  

**# of Positions:**  2

**Description / Responsibilities**

The horticulture lighting fixtures that are under development for LESA’s Plant Lab, are individual lighting modules that are used in groups of 24 per horticultural growth area. These advanced units, provide unprecedented intensity and spectral options for the horticultural growth environment. In addition to the hardware, LESA is developing system level control software to provide autonomous operation of the lighting system variations throughout the experimental growth cycle. As the lighting modules are being built and tested by the LESA engineering team, this URP project will focus on the programming needs for the system of 24 as a whole. System integrity, reliability and error handling are concepts that will be addressed for the code under development.

The system level advanced programming requirements include:

- Multi-variable control system for efficient and reliable operation (python programming)
- User interface development (python programming)
- Real time web based display/interface development

The overall goals this URP effort include:

- Upgrade/improve/expand existing version of control software
- Develop initial user interface
- Develop system architecture to poll & display real time status of system data in web interface

**Applicant Requirements**

- Demonstrable python programming proficiency
- Demonstrable UI design and programming experience (examples beyond coursework preferred)
- Good communication skills; ability to work as part of a team
- Reliable availability for 6-10 hours per week

Interested students, send your resume & cover letter to LESA no later than **Friday 1/18**.

Send to:  
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