

Term UROP is offered: Spring
UROP Department, Lab or Center: D-Lab
MIT Faculty Supervisor Name: Eric Verploegen

Project Title: Development of an Android app for SMS communication with users of clay pot coolers in low-income rural communities

Project Description: We are looking for a student to help develop an Android app to enable communication with users of clay pot coolers and other evaporative cooling devices. When affordable and effective post-harvest storage solutions are not available or affordable, people living in off-grid rural communities will often experience vegetable spoilage, loss of income, lack of access to nutritious foods, and large amounts of time spent purchasing vegetables. Clay pot coolers are low-cost devices that operate through the principle of evaporative cooling to provide a cool and humid environment for storing fruits and vegetables.

MIT D-Lab is currently working with the World Vegetable Center and Institut d'Economie Rurale (IER) to raise awareness of these technologies through a training program in Mali. The team has trained over 300 clay potters, farmers, vegetable vendors, and vegetable consumers and is working to gather feedback and share information with the participant of these trainings as well as others who are using the technology. In-depth interviews are conducted in-person, but in order to engage more frequently with larger numbers of people we are looking to develop an Android app that will enable automated conversations over SMS.

Interested candidates should email ericv@mit.edu with a brief explanation of why they are interested in this project and describe any relevant previous experience.

Prerequisites: Applicants should have an interest in practical solutions to global poverty challenges. Experience with or knowledge of Android application development, cybersecurity, or related fields is preferred

Relevant URL: <https://d-lab.mit.edu/research/evaporative-cooling-vegetable-preservation/clay-pot-coolers>

Contact: Eric Verploegen (ericv@mit.edu)

