

Opportunity Title: Postgraduate Research Opportunity in Data-driven Pest Management and App Development

Opportunity Reference Code: USDA-ARS-2020-0125



Organization U.S. Department of Agriculture (USDA)

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How to Apply A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

All documents must be in English or include an official English translation.

If you have questions, send an email to USDA-ARS@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 7/21/2020 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

Two research opportunities are available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Tropical Crop and Commodity Protection Research Unit located in Hilo, Hawaii.

The mission of the Tropical Crop and Commodity Protection Research Unit is to develop pre- and postharvest technologies and management strategies for invasive pests, and to open and maintain market access and improved quality of tropical fruit, vegetable and ornamental crops grown in the Pacific Basin. The selected participant will be involved in the analysis of field data to determine optimal monitoring strategies for pests of coffee and contribute to the development of a smart phone app to assist coffee growers in pest management and production of high quality coffee. Specific activities will include data analysis via standard software such as R and Python/Anaconda. Additionally, the participant will attend meetings with growers, participating in outreach and testing with growers and users. Under the guidance of a mentor, the participant will be involved in planning, analysis design, method development, implementation, and software development. This opportunity will provide exposure to cutting-edge data analysis and data-driven decision support techniques and approaches, contemporary app development, as well as experience with factors affecting coffee quality, providing the participant with excellent training in these areas.

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and ARS. The initial appointment is for one year, but may be renewed upon recommendation of ARS and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and

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experience. Proof of health insurance is required for participation in this program. The appointment is full-time at ARS in the Hilo, Hawaii, area. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits.

This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) only.

For more information about the ARS Research Participation Program, please visit the [Program Website](#).



Qualifications

The qualified candidate should have received a bachelor's degree in one of the relevant fields, or be currently pursuing the degree and will reach completion by the appointment start date.

Preferred Skills:

- Experience in app development for mobile devices
- Experience in back-end database and network programming
- Training in basic mathematics
- Research experience in pest control, entomology, agriculture
- Knowledge of Linux/unix and scripting
- Strong interpersonal skills
- Excellent oral and written communication skills

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree.
- **Academic Level(s):** Post-Bachelor's or Undergraduate Students.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (7 )
 - **Life Health and Medical Sciences** (5 )