Application: CEIASCS-COMB3353

Foronda, Champ Andrei

Started at: 2/15/2021 03:48 PM - Finalized at: 2/26/2021 04:54 PM

Page: Entry Information

Welcome to the 2021 NAU Virtual Symposium registration page!

1. All registrations must be finalized by Thursday, April 1 at 11:59 pm.

2. To complete the registration process, you must submit four items:

    a.   a title

    b.   an abstract

    c.   a PDF of your presentation

    d.   video

3. Your application **will not be submitted** until you click on **"Save and Finalize"** on the last page.

4. You are able to save and return to your application. **You may access completed registrations and make final edits until Thursday April 8 at 11:59 pm.**

5. If proof of registration is needed for a course, completed registrations may be downloaded as a PDF by clicking on "Completed" in the left hand menu.

6. Download our Symposium Registration Checklist for a complete list of questions on the registration form.

IMPORTANT: If you have co-presenters, be sure to add them using the "Manage Collaborators" button in the top right corner of the submission form. Anyone added as a collaborator will have access to the registration and be able to make changes as needed.

Questions? Please visit our website at nau.edu/symposium or contact us at ug-research@nau.edu.

Name

Foronda, Champ Andrei

Co-Presenters

Brigham Ray, Brandon Thomas, Joshua Holguin, Seth Burchfield

Presentation Type

Poster with video presentation

NAU Email Address

cf654@nau.edu

I am a/an

undergraduate student

Major(s)/Area of Study

B.S. in Computer Science

Minors/Certificates

Primary mentor or instructor's first and last name

Dr. Eck Doerry

Email address of primary faculty mentor or instructor

eck.doerry@nau.edu

Additional mentors

Yes

Additional mentors

Volodymyr Saruta

Page: Presentation Information

In this section, you will be asked the college in which the project was completed. **This is the college or program you will be assigned to present with at the Symposium.** If needed, you will be asked to indicate the department after selecting the college.

Please note: This may not be the same as your college/major. If you are not sure which college and department to select, please consult with your faculty mentor or course instructor to determine the best fit.

Examples:

- You are a biology major but are presenting a project for your Honors capstone. You would select "Honors College."
- You are a psychology major in Social & Behavioral Sciences but are giving an oral presentation for an English class. You would select "College of Arts & Letter - English."

After selecting the college/department, you will be asked to select the format of your presentation.

Presentation College/Department & Format

College of Engineering, Informatics, and Applied Sciences > Computer Science Capstone > Combined Engineering Capstone Presentation (Poster and Oral Presentation)

Client/sponsor(s) for this project

Duane Booher; IoT Team Lead, NAU ITS

Class Requirement

Yes

Class

CS486C

Funding Source

Capstone Project Sponsor

Page: Presentation Title and Abstract

Title

PiWatchers: A cost-efficient scalable people counting infrastructure for tracking footfall.

Abstract

People counting provides a series of valuable metrics that can be utilized to allocate resources more effectively for businesses and institutions. Motivated by the COVID-19 pandemic, this project aims to measure the footfall within enclosed spaces in real-time. The current solution measures the number of people in an area utilizing a number of expensive technologies totaling over $1000. This proposed solution aims to reduce this price significantly by 85%. The vision for this project is to leverage modern IoT technologies to replace the current solution with an internally hosted people counting platform that aims to maintain accuracy, scalability, and security. Utilizing a real-time object detection algorithm, our infrastructure will employ Raspberry Pi's to collect metrics that can be analyzed on a full-stack analytics dashboard with ease. In addition, this solution aims to protect the privacy of an organization's members by storing the captured images in context where they can be immediately deleted once analyzed.

PDF of Presentation

Download File

Video

Download File

Video/Audio URL

Additional Uploads

No

followUpFriday

No

Consent to print in program

I AGREE to have my name, presentation title, abstract, and uploaded documents in the digital and printed programs. I understand these will be publicly available from April 12-16.

NEW THIS YEAR

You will be scheduling Zoom meetings with your reviewers.

More information will be sent out in the near future.