DEPARTMENT OF ENGINEERING AND COMPUTING EDUCATION
COLLEGE OF ENGINEERING AND APPLIES SCIENCE

APPLICATION DEADLINE: 11/01/2023

PROJECT TITLE: Spatial Tasks, Apps, and Assessments (STAA) Development

Physical Requirement: Not Applicable

Project's Technical Skills Requirement: Experiences in 3D CAD modeling and printing

Project's Available Positions: Undergraduate Research Assistant

So Yoon Yoon, Ph.D.
Assistant Professor
4150P Edwards One
yoons5@ucmail.uc.edu
513-556-2838

Project Description

Spatial intelligence is a vital component of success in science, technology, engineering, mathematics, and Medicine (STEMM). It is a skill crucial for both educational excellence and professional achievement. However, there has been a lack of valid and reliable tools to assess multifaceted dimensions of spatial ability. This project involves (a) a review of existing spatial apps and assessment tools to explore the landscape of the current market and (b) hands-on experience in developing brand-new spatial apps or tools using cutting-edge 3D CAD modeling and object printing technology. Participation in this project will lead to co-authorship of a conference paper. As part of Dr. Yoon's research group, the undergraduate research assistant also has an opportunity to collaborate with graduate students working on various projects.

Preferred skills include:
- Experience in CAD or SOLIDWORKS
- Experience/familiarity with app development

Training Provided:
- Spatial skill training
- Data ethics and integrity via CITI Training, IRB onboarding
- Cross-discipline collaboration skills
- High potential for research publications and presentations at the local, national, and international levels