Augmented Reality in Clinical Training - Fall 2019 Capstone

This proposal outlines the development of an Augmented Reality solution for training in medical hand hygiene and sterile compounding techniques. (RP 2019.08.29)

Goal/Objective

Create an augmented reality environment to train clinicians in specialized clinical procedures.

Background

Training in sterile compounding is a component of pharmacy education and training across the country. Similarly, training for appropriate hand washing required and procedures in surgical environments are required of medical students. The resources required for this training can be prohibitive due to the time, personnel, and space requirements. Coordinating the resources, trainee experiences, and feedback required in appropriate training is a universal problem for schools, hospitals, and institutions that provide customized pharmacy sterile compounding and surgical procedures in healthcare.

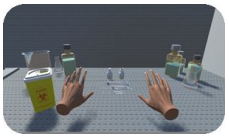
Solution

Creating an augmented reality platform to train users in simulated clinical environments using custom hardware controllers and software to model and teach clinical procedures and concepts.

Team

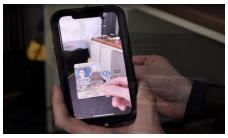
- Dmitiry Babichenko, *Professor of Practice*
  dmb72@pitt.edu
- Graduate Student Programmer
- Ravi Patel, *PittPharmacy Innovation Advisor*
  rmp40@pitt.edu
- CS Capstone Student, *Student Programmer(s)*

Previous Progress (2016-2019)



V1 Link

V2 Link



V3 Link

Capstone Outcome/Deliverables

- Project requirements
  - End of any project should have working coding+documentation
  - Will work alongside graduate student programmer
- Recommended, not required:
  - Previous experience programming in Unity
  - Previous experience working with Source control (Github or Azure Teams)
- Communication
  - Must communicate with graduate programmer, stakeholders, and professor for consistent updates and resource requirements
- Expected Outcomes/Experience
  - Work on an evolving project/platform
  - Demonstrable outcome of work in Unity