

Designing a Smart Augmented Reality Platform for Skills Training

PROJECT DESCRIPTION

In learning multi-step healthcare procedures, trainees often need to split their attention between performing the task and following instructions. We propose to develop an innovative teaching platform to facilitate student learning with minimal distractions. The platform incorporates augmented reality (AR) to display instructions to students' peripheral vision while practicing healthcare procedures. A new computing algorithm will be developed to augment instructional messaging in an optimal format and time-frame without interrupting the trainee. We will compare learning outcomes between direct vision and AR guiding conditions, and use evidence extracted from eye-tracking to reveal trainees' learning behaviors. Scientists and engineers at the University of Alberta are collaborating to teach skills with this innovative approach. We anticipate that the proposed AR training platform will improve quality of skill education for learners in different industries.

FACULTY-DEPARTMENT

Medicine and Dentistry - Surgery

DESIRED FIELD OF (STUDENT) STUDY

Computing Science Students. Know these programs: C++, Java, HTML, MATLAB.

Students involving with VR/AR project will be preferred.

Students having experience of using eye-tracking device will be preferred.

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

NUMBER OF INTERNSHIP POSITIONS

2

INTERNSHIP START DATE

July 4, 2018

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
University of Alberta International
intern@ualberta.ca

INTERNSHIP END DATE

October 3, 2018

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.