Virtual Self: Using Photorealistic Avatars for Virtual Reality-based Training and Therapy

Supervisor: Prof. Wole Oyekoya
Research group: Visualization and Virtual Reality
Website: https://www.wolex.com/
Degree Program: Computer Science

The Visualization and Virtual Reality group of Dr. Wole Oyekoya at the City University of New York (Hunter College) and the CUNY Graduate Center is inviting applications for one fully funded PhD student position starting in Fall 2022 or later. The typical duration of the PhD program is from 4 to 5 years. The admitted student will have tuition fees covered and stipend covered by the CUNY Graduate Center and Hunter College. The student will be hosted at Hunter College, located in Upper-East Manhattan.

Research Description

Immersive virtual environments can be used to create virtual simulations of various research applications. This research aims to create a virtual character representation (exact 3D scan) of the physical self, using latest body scanning technology to create fully texturized photorealistic object models. The student researcher will be expected to explore ways of creating photorealistic avatars through methods such as 3D rendering human face and 3D human body reconstruction.

The aim of the research is to allow humans to be able to watch their virtual self in immersive 3D visualization systems, performing actions that their physical self will not otherwise be able to perform. We hypothesize that the visual experience of the virtual self may positively influence one's behavior. Applications include bullying and microaggressions.

Knowledge and skills required in applicant

Background in Virtual Reality programming and Computer Graphics. Extensive knowledge in 3D modeling is a desirable skill. The researcher is expected to demonstrate skills and experiences that will enable full 3D human body capture, animation and rendering.

How to apply

Information on the Computer Science PhD program and how to apply is available on https://www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Doctoral-Programs/Computer-Science/Program. Application materials: CV, research statement, transcripts, GRE, and TOELF/IELTS results. Applications should be submitted online.

Enquiries

Applicants are encouraged to send your CV and research statement for initial feedback to Dr. Wole Oyekoya. Informal enquiries about the lab should also be directed to Prof. Wole Oyekoya by email at oo700@hunter.cuny.edu.