ABLE Platform for Rehabilitation in Home

Thursday, September 13, 2018 5:38 PM

Pulse Lab, an interdisciplinary multimedia lab in the faculty of humanities is co-developing an art-based rehabilitation experience with local seniors with dementia and fragility. This art- and game-based platform, named ABLE, seeks to make physical therapy at home more enjoyable and thus sustainable. ABLE is a gesture-based, biometric platform, that generates real-time paintings, soundscapes, and games to play with a family member or caregiver. ABLE's current iteration uses Bluetooth-connected sensors worn on the foot to detect. This data is used to give onscreen visual and audio feedback in an immersive and engaging 3D environment, developed using the Unreal Game Engine (UE4).

1. Suggested team size: 2 -- 3 students
2. Expected skills: Unreal Game Engine, Python Programming
3. What you will learn: Game Design, User Interaction Design
4. Tasks:
    1) Develop an interactive gaming environment that encourages exercise;
    2) Design user interface based on user feedback

You will be interacting with researchers in Pulse Lab and supervised by Dr. Rong Zeng from CAS and Dr. Paula Gardner from Pulse Lab.