



FLORIDA ATLANTIC UNIVERSITY

DATA SCIENCE, ANALYTICS, AND ARTIFICIAL INTELLIGENCE CONFERENCE

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BREAKOUT SESSION PRESENTATION DESCRIPTION

CHARLES E. SCHMIDT COLLEGE OF SCIENCE

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PEACE: Protecting the Elderly with AI for Clinical Emergencies

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Senior citizens and those living with certain medical conditions are susceptible to medical emergencies, including falling-over episodes. According to the CDC, every 11 seconds an older adult is treated in the ER for a fall and every 19 minutes an older adult dies from a fall. Reactions to these episodes should be quick and efficient so medical treatment can be administered quickly. Other life alert systems such as the Apple Watch also serve to assist seniors that suffer from falls; however, according to Apple's careful language, the Apple Watch is meant to serve as a supplement to, not a replacement for, other fall detection systems. The absence of an efficient response algorithm could cost a life. The objective of this project is to employ AI pose-tracking technology as an improved method in detecting atypical movement patterns and to provide a faster forewarning for potential falls in seniors, thus expediting reactivity to such emergencies. Implementing this innovative technology throughout nursing homes as well as individual households as life alert detection systems could mitigate this issue. This technology has the potential to successfully impact the 74.1 million individuals within the geriatric population. The innovation aims to be low-cost, with high response times, high efficiency rates, and increased independence for seniors and individuals living with medical conditions.