CAREER: Event-based Learning and Neurofeedback for Continuous Health Monitoring using Wearable Biosensors: Data-Driven Approaches and Fairness

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Background and Objectives:

Event-based learning and neurofeedback is a novel bio-inspired system design framework that relies on event-based data processing (e.g. spiking neural networks) to simultaneously improve performance, robustness to perturbations, and alleviate energy consumption. Traditional cyber-physical systems are typically designed with power and resource hungry approaches which cannot be scaled in applications on the edge.

heterogeneous bio-electrical signals such as electroencephelogram (EEG), functional near-infrared spectroscopy (fNIRS), electrocardiogram (ECG) and galvanic skin responses (GSR) to

Intellectual Merit:

Education Plan:

Broader Impacts: