



FACULTY MENTOR

Edward Wang

PROJECT TITLE

Ubiquitous Computing for Healthy Living

PROJECT DESCRIPTION

Description: A burgeoning topic at the cross section of healthcare and mobile technology is the topic of mobile healthcare devices for personalized medicine. Today, we are limited by our understanding of human health based on sparse measurement of our health status and populational level understanding of how disease progressions. We lack in the ability to continuously capture a person's health status and pre-emptively capture development of disease onsets and exacerbations. This next phase in health care will rely on technology that can begin to offer insight into a person's health in daily living, in different living contexts, and capture a diversity of information that can begin to help us represent the complex human biology. In this SRIP position, the student will be engaged in 1) replicating a number of state of the art mHealth sensing and actuation solutions in literature, 2) developing with Cypress PSOC system, and 3) identifying with the PI opportunities to improve upon one of the spaces. The majority of the summer will focus on replicating a number of papers that have been identified as high potential directions that will make an impact in healthy living, some examples are continuous respiration, mood, pain, and biofeedback.

INTERNS NEEDED

1 MS

PREREQUISITES

Required Qualifications:

1. Proficient with Microcontroller, I2C, Digital and Analog Sensors, Signal Processing
2. Optional but desirable: write custom c library for sensor interfacing, experience with cypress psoc