Evaluation and selection of IoT devices for remote subject monitoring in clinical research

(23.05.2021)

Internship Number 34619

Type PDM coordonné

Number of positions 1

Length 4-6 months

Hiring time Period 2: July - February (2021-2022), Period 3: July - September (2021)

Company informations

Company (top) Nestlé Research

Company (lab, dpt, ...)

Address Route du Jorat 57

URL

City 1000 Lausanne 26, Switzerland

Contact informations

Contact Khaled Nadia

Professional phone 0795484766

Title Dr

Cell phone 0795484766

Email nadia.khaled@rdls.nestle.com

Work description

Academic supervisor Atienza Alonso David

Description and objectives
The proliferation of IoT consumer/medical devices, wearables and Apps measuring a wide variety of health, nutrition and lifestyle indicators offer great opportunities for clinical research. Specifically, it is increasingly possible to collect subject data remotely and unobtrusively in real-life settings; while reducing subject burden, improving data accuracy and quality, and enabling new insights not feasible based on the site/visit-centric data collection of traditional clinical trials.
Nevertheless, a careful assessment of these devices and their associated operational set-up (incl. data flow) is required ahead of their integration in a clinical trial. This assessment ensures the operational feasibility of using and retrieving high-quality data, and compliance with ethical and legal obligations (incl. data privacy).
This project will focus on designing and optimizing the operational set-up for remote data collection for two target clinical trial applications: (1) infant crying detection and AI-based cry classification; (2) personalized nutrition (exact focus TBD depending on project pipeline & candidate interest).

■ École
polytechnique
fédérale
de Lausanne

Education

EPFL E-DAF CC
Centre de Carrière
Station 20
CH - 1015 Lausanne

+41 21 693 79 72
stages@epfl.ch
stages.epfl.ch

1

Workplan

Required skills
1. Good embedded system design knowledge.
2. Knowledge of machine learning approaches.
3. Knowledge of programming in Python is a plus.
4. Optional: Apps programming

Languages English (Intermediate)

Location Vers-chez-les-Blanc

File (pdf) RemoteSubjectMonitoring-Clinical Research Unit-Nestlé Research.pdf
Remark

Conditions of registration

Masters & Domains of activity

Related masters Electrical & Electronic Engineering, Energy Science and Technology