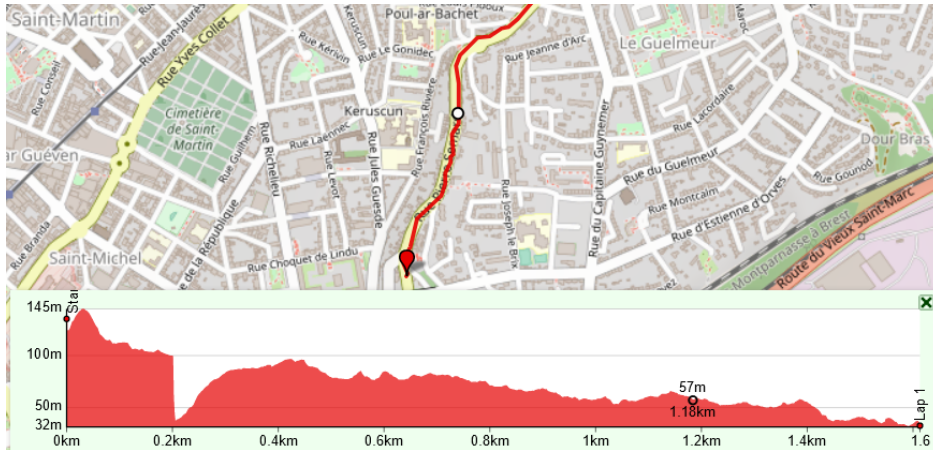


IT internship offer 2 to 3 months

Development of a GPS and heart rate data visualization interface



Location: CERV (European Center for Virtual Reality) and UBO

Contacts: [Olivier Augereau](#) and [Edna Hernández González](#)

This subject falls within the framework of the [Noz Breizh](#) chair, and more particularly of the [Noz Num](#) research project, the objective of which is to understand the social representations created around nocturnal movements as well as the appropriation of urban space. This research focuses in particular on the feelings of women who travel at night, what they feel, what they fear, when and why.

People have worn the FitBit wristband on their night commutes. This bracelet can record the GPS coordinates, altitude and heart rate of the user. The goal of this internship is to develop a graphic interface allowing to visualize these routes on a map as well as the altitude and the heart rate. This interface will be used to compare the heart rate of the same user making the same journey at different times of the day or on different days. We want to see if it is possible to determine the portions of journeys where the heart rate increases the most (and with no change in altitude) which could reflect user stress.

Reference:

De Silva CS, Warusavitharana EJ, Ratnayake R. An examination of the temporal effects of environmental cues on pedestrians' feelings of safety. *Computers, Environment and Urban Systems*. 2017 Jul 1;64:266-74.