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| Job Description |  |
| Summer Research intern |  |
| UCL Interaction Centre (UCLIC) | Hourly rate: £10.43 |
| Location: UCL London Campus | Duration: 12 weeks starting in June 2019 |

#### Reports to:

**Department of Computer Science**

Professor Yvonne Rogers and Dr Nicolai Marquardt.

#### Context

The intern will engage in a knowledge exchange with Yvonne Rogers and the UCL Interaction centre focusing on innovative ways of delivering digital skills to secondary students through movement and physical computing. They will develop a novel digital physical computing learning tool (hacked Geiger Counter) that can be used to sense aspects of the environment, human bodies and dance sequences as a new way of understanding and developing the use of movement in delivering digital skills. The goal of this interdisciplinary project is to impact the number of secondary school students engaging coding and dance. The intern will work with Rebecca Evans from Pell Ensemble and Su Adams from U Can Too.

#### Main purpose of the job

To build the interactive tool by hacking a Geiger Counter. Allowing it to pick up human inputs (movement, heartbeat, breath, heat) and create artistic digital outputs (sound, projection etc.). These input and outputs should be accessible to students, allowing them to manipulate and design their own outcomes. The project will consider how to make it possible for students open up the Geiger Counter, understand the basic circuitry, rewire and code the counter to interpret human inputs and create digital outputs. It will involve designing, prototyping, engineering, making and coding.

#### Duties and responsibilities:

* To contribute to the design of a prototype that can be trialled in the Pell Dance workshops.
* To hack into a Geiger Counter to allow it to pick up human inputs (movement, heartbeat, breath, heat) and help create artistic digital outputs (sound, projection).
* To help prototype 5 adapted Geiger Counters to enable the input and outputs to be accessible to students, allowing them to manipulate and design their own outcomes.
* To attend workshops and project meetings
* Explore how the hacked Geiger Counter can be used as a physical computing learning tool.
* The post holder will actively follow UCL policies including Equal Opportunities and Race Equality policies
* The post holder will maintain an awareness and observation of Fire and Health & Safety Regulations
* The postholder will carry out any other duties as are within the scope, spirit and purpose of the job as requested by the line manager.
* The postholder will actively follow UCL policies including Equal Opportunities and Race Equality policies.

# Person specification

| Criteria | Essential or Desirable |
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| **Experience and knowledge** |  |
| Be registered for a Computer science or Engineering Degree undergraduate course | Essential |
| Knowledge of physical computing prototyping | Desirable |
| **Skills and abilities** |  |
| Ability to program, collect, and analyse data | Essential |
| Making and prototyping | Desirable |
| Basic engineering | Desirable |
| Ability to work to deadlines whilst maintaining accuracy and an eye for detail | Desirable |
| Ability to communicate research verbally, to individuals and groups | Desirable |
| **Attributes** |  |
| Ability to work collaboratively and as part of a team in a research community | Essential |
| Ability to work unsupervised | Desirable |
| Applicants should be self-motivated and able to use their initiative | Essential |
| Commitment to UCL’s policy of equal opportunity and the ability to work harmoniously with colleagues and students of all cultures and backgrounds | Essential |
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# Apply

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| To apply for this position visit: <http://www.cs.ucl.ac.uk/careers/departmental_research_internships/> |