



School of Computing, Engineering, and the Built Environment Edinburgh Napier University

PHD STUDENT PROJECT

Funding and application details

Funding status: Self funded students only

Application instructions:

Detailed instructions are available at <https://blogs.napier.ac.uk/scebe-research/available-phd-student-projects/>

Prospective candidates are encouraged to contact the Director of Studies (see details below) to discuss the project and their suitability for it.

Project details

Supervisory Team:

- DIRECTOR OF STUDY: Babis Koniaris (Email: B.Koniaris@napier.ac.uk)
- 2ND SUPERVISOR:

Subject Group: Computer science

Research Areas: Computer Graphics, Human Computer Interaction , Videogames

Project Title: Capture and Contextualisation of Cultural Heritage Data

Project description:

Museum artifact digitization is typically limited to using specific equipment for capture, or to the duration of funded digitization projects and tied to particular institutions. There is a focus on individual capture, but artifacts are rarely contextualised further, utilising interactive media, such as interactive displays, VR/AR [3].

This PhD aims to study current approaches in low-cost capture of digital artifacts, and their contextualisation in interactive media experiences, co-located to institutions or otherwise. The outcome of the study can inform the development of a widely accessible, non-intrusive low-cost capture approach. The captured

artifacts generated by such an approach should be recorded in a form suitable for re-use in interactive media. A subsequent outcome of the PhD is the development of tools to assist contextualisation in interactive media for different existing UX approaches.

References:

Candidate characteristics

Education:

A first-class honours degree, or a distinction at master level, or equivalent achievements in Computer Science

Subject knowledge:

- Computer Graphics

Essential attributes:

- Experience of fundamental computer graphics
- Competent in programming and optimisation
- Knowledge of real-time application development
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Desirable attributes:

- Programming experience in C/C++ or C#
- Experience in the use of game engines
- Good knowledge of linear algebra