Πανεπιστήμιο Κύπρου
University of Cyprus

DEPARTMENT OF COMPUTER SCIENCE
3- YEAR FUNDED SPECIAL SCIENTIST POSITIONS

Title	: Special Scientist
No. of Position(s)	: 2
Category	: One-year contract with a possible renewal for another two years, with an expected start date September 2020.
Location	: University of Cyprus, Nicosia

The Department of Computer Science announces 2 full time Special Scientist positions for the research programme CLIPE (*Creating Lively Interactive Populated Environments*) funded by the EC (under the Horizon 2020 Marie Skłodowska-Curie Innovative Training Network action).

The research objective of CLIPE is to design the next-generation of VR-ready characters. CLIPE is addressing the most important current aspects of the problem, making the characters capable of behaving more naturally; interacting with real users sharing a virtual experience with them; being more intuitively and extensively controllable for virtual worlds designers.

POSITION 1 (ESR 1) DETAILS

Project Title: Motion retargeting with stylistic control
Supervisor: Prof. Yiorgos Chrysanthou
Objectives: 1. Develop algorithms for real-time interaction between real and virtual characters, including stylistic modification and displaying expressions, **2.** Use modern machine learning techniques to allow reconstruction of fine motion to add variety and realism to virtual characters, **3.** Algorithms for automatic adaptation of the captured movement to the target environment (VR/AR).
Expected Results: 1. Algorithms for real-time interaction in virtual worlds and characters with realistic behaviours, **2.** Innovative techniques to stylistically manipulate a virtual character, **3.** Algorithms, tools and evaluation methods for controlling an avatar in a virtual environment.

POSITION 2 (ESR 2) DETAILS

Project Title: Text based control for characters and small groups
Supervisors: Prof. Yiorgos Chrysanthou and Prof. Marios Avraamides
Objectives: 1. Review of methods for authoring virtual humans, emphasizing on usability, control, interactivity, style and quality of generated results, **2.** Study deep neural networks with emphasis on their use for textually describing and synthesising datasets such as images or videos, **3.** Propose methods based on deep neural networks and other Machine Learning algorithms to automatically generate behaviours of the characters using text.
Expected Results: 1. Methods and algorithms to describe and generate populace for scenes, with a small number of characters, using textual descriptions, **2.** Methods to provide users with easy authoring and feedback that will keep the salient but important features of the behaviour.

DUTIES AND RESPONSIBILITIES

- Undertake individual research in the aforementioned area.
- Travel to project meetings and workshops at partner sites across Europe.
- Undertake training in research and innovation both independently and collaboratively with other Marie Curie Fellows at partner sites.
- Contribute to the planning and documentation of the project.
- Prepare and present findings and progress to colleagues for review purposes.
- Present the projects at workshops and conferences.

- Contribute to the writing up of the project.
- Prepare progress reports on research for funding bodies as required.
- Contribute to the preparation and drafting of research bids and proposals.
- Contribute to the overall activities of the research team and department as required.
- Carry out any other duties commensurate with the grade and purpose of the post.

The successful candidate will be exposed to different industry requirements through their placements/ internships in *world-renowned companies* (industrial partners), such as BBC, UBER, Treedy's, Amazon Development Center, etc.

QUALIFICATIONS

The successful candidates should:

- hold a Master's degree in Computer Science, Mathematics or Engineering (or an equivalent diploma allowing them to pursue a PhD);
- be in the first 4 years of their research career and not have a doctoral degree (The 4 years are measured from the date when the applicant obtained the degree which would formally entitle him/her to embark on a PhD);
- possess excellent/ good oral and written English language skills (if English is not his/her first language);
- have good skills in scientific writing and results presentation.

The successful candidates should not to have resided or carried out their main activity (work, studies, etc.) in Cyprus, for more than 12 months in the 3 years immediately prior to the recruitment date.

EMPLOYMENT TERMS

The positions are on a contract basis of one year, and are renewable for another two years. The monthly salary is estimated at €2350,76. From this amount employee contributions will be deducted. The position does not include a 13th Salary or bonus. The salary will be supplemented with a Mobility Allowance (€600 per month). Eligible applicants based on family status may receive an additional Family Allowance of €500 per month.
In addition to the above, full tuition coverage for doctoral studies at the University of Cyprus are covered by the funding.

Interested candidates should submit the following items, in PDF or Word format, via e-mail to Prof Yiorgos Chrysanthou (email: yiorgos@cs.ucy.ac.cy) by the **22nd of June 2020, at 14:00, the latest:**

i. Cover letter that specifies their employment availability date.
ii. A detailed curriculum vitae in Greek or in English (contact address and telephone number should be included).
iii. Copies of transcripts of relevant degree(s).
iv. The names and contact details of at least two university professors from whom references may be requested.

For more details and other information, interested individuals may contact Prof. Yiorgos Chrysanthou (Supervisor for Positions 1 and 2) and Prof. Marios Avraamides (Co-Supervisor for Position 2), by email: yiorgos@cs.ucy.ac.cy, marios@silversky3d.com or telephone: + 357 2289 2719, +357 22 252500
For more information on the project, please also visit https://www.clipe-itn.eu.