



BU PhD Studentships 2007

Computer Games Related Research

Background to Research

Summary of Research Project:

This project involves the research, design and implementation of aspects of a generic Computer Games development system prototype which will make the production of a computer game as relatively painless as existing Computer Animation development systems make the production of a computer animated sequence. This project involves the research of a number of complex issues and the development of novel software tools. The tangible outcomes of this research project will be the design of a novel game description language and the implementation of a prototype game development system.

Background and Rationale:

This project will culminate in the implementation of a prototype computer game development system which, upon completion, will be released with an open-source licence and is intended to be used and further developed by academia and industry alike.

This project is likely to establish the reputation of the NCCA in the Computer Games area, thus complementing its already considerable reputation in the Computer Animation area. Such a project will also have beneficial effects on the NCCA teaching programmes, as it will allow us to involve our undergraduate and postgraduate students in the implementation and testing of a novel games development system. This is important, as 40% of our graduates obtain employment in the Computer Games industry.

Although such a project appears ambitious, it is perfectly within our capabilities. The members of the supervisory team have among them extensive experience in the design and implementation of complex animation and modelling systems. Prof. Comninos, with over twenty years R&D experience in animation systems, has developed the CGAL animation system that was used to produce numerous prize-winning animations. Dr. Adzhiev is a noted functional representation expert and has helped develop the HyperFun modelling language and tools, which are well known in the Computer Graphics community.

Prof. Comninos is currently supervising three PhD students in Computer Games related research, including the development of an NPC behaviour description language, the simulation and rendering of weather phenomena and research in physics engine design for Computer Games.

Outstanding Applicants

We are looking for outstanding applicants who will preferably have a good first degree (first or upper-second class) and/or a Masters degree in Computer Science or Mathematics. An IELTS (Academic) score of 6.5 minimum is essential for candidates for whom English is not their first language.

Supervisory Team & Research Environment

Prof. Peter Comninos, Dr. Valery Adzhiev and Dr. Oleg Fryazinov

Informal Enquiries

For informal enquiries please contact Prof. Peter Comninos at peterc@bournemouth.ac.uk

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