



Make  
it matter.

## POSITION DESCRIPTION

# Programmer: iCinema Centre for Interactive Cinema Research

Position Level	5
Faculty/Division	UNSW Arts, Architecture & Design (working title)
Position Number	00088257
Original document creation	21/09/2020

### Position Summary

The iCinema Centre for Interactive Cinema Research is an interdisciplinary research centre spanning the UNSW Arts, Architecture & Design, and the Faculty of Engineering.

The iCinema Centre's main focus lies in application development based on the Advanced Visualisation and Interaction Environment (AVIE). The AVIE is a state-of-the-art virtual reality theatre, composed of a 10-meter wide, 4-meter high cylindrical screen, six 3D projectors, a 24-channel surround sound system, a multi-camera motion tracking system and a cluster of high-end PCs. Designed to immerse groups of people in 360-degree stereoscopic real-time imagery and audio, the AVIE allows for the development and study of applications in the fields of immersive visualisation, virtual and augmented reality, interactive cinema and human interaction design. (see [www.icinema.unsw.edu.au](http://www.icinema.unsw.edu.au))

### Centre statistics

- The total value of assets in the iCinema Centre facility is \$7M with approximately \$100K spent each year on maintenance and enhancements.
- Operations are on Windows and Linux platforms across over 70 servers and workstations.

The Programmer will develop and maintain iCinema software and hardware-based applications, systems and frameworks across research and commercial installations, with guidance from the supervisor and other iCinema staff.

The Programmer role is a full-time, 3 year fixed-term position.

The role of Programmer reports to the Senior Programmer.

### Accountabilities

Specific accountabilities for this role include:

- Contribute to the development of iCinema projects, primarily with Unity3D and C#.
- Assist with the design, develop and maintain the iCinema Software Development Kit(s).
- Contribute to the development and maintaining infrastructure control, and maintenance applications using Python, Windows batch scripting and Unix shell scripting.
- Develop applications and scripts to automate processes such as media conversion and data backup workflows.
- Create well-written documentation for source code and processes.
- Demonstrate iCinema projects and systems to visitors and student groups.
- Align with and actively demonstrate the [UNSW Values in Action: Our Behaviours](#) and the [UNSW Code of Conduct](#).
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

## **Skills and Experience**

- Relevant tertiary degree in Computer Science or equivalent level of knowledge gained through a combination of education, training and experience.
- Experience in C#, Unity3D and Python.
- Knowledge of real-time 3D graphics rendering and implementation.
- Knowledge of concurrency/synchronization with regards to multi-threading and multi-computer clustering.
- Excellent written and oral English communication skills.
- Understanding of software design and development in a team environment.
- Understanding of software planning and overall development processes.
- Knowledge of equal opportunity principles.
- An understanding of and commitment to UNSW's aims, objectives and values in action, together with relevant policies and guidelines.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

### **About this document**

This Position Description outlines the objectives, desired outcomes, key responsibilities, accountabilities, required skills, experience and desired behaviours required to successfully perform the role.

This template is not intended to limit the scope or accountabilities of the position. Characteristics of the position may be altered in accordance with the changing requirements of the role.