

Recognized as a global leader in interactive and digital entertainment, Sony Interactive Entertainment\* (SIE) is responsible for the PlayStation® brand and family of products and services. PlayStation has delivered innovation to the market since the launch of the original PlayStation in Japan in 1994.

The PlayStation family of products and services include PlayStation®5, PlayStation®4, and PlayStation®VR systems, PlayStation™Store, PlayStation®Plus, PlayStation™Now, and acclaimed PlayStation software titles from PlayStation Studios.

SIE R&D are technical experts on topics relating to any of the PlayStation platforms. They group is unique in that they report directly to both SCEE Central as well as the Tokyo-based SCEI R&D Organisation that designs PlayStation hardware.

## Emotional connection between virtual avatars and game players

We are seeking a postdoctoral researcher to join our team in exploring the emotional connection between virtual avatars and game players. As technology continues to advance, the use of virtual avatars in various industries such as gaming, virtual reality, and even customer service is becoming more prevalent. However, we believe the next step in the evolution of virtual avatars is to give them emotional and personality characteristics that make them truly lifelike.

Our research focuses on three key questions:

- How can we express emotion and personality in a virtual avatar through visible expression, such as facial animation, audible expression through communication style and vocal tone, and expression through action choice?
- How can we detect game players' emotions and intentions through their communication and actions, and map them to the virtual avatar's emotional representation?
- How can we combine these two sources of information to adjust the virtual avatar's emotional simulation to reflect the game player's actions and reactions, making the avatar seem as realistic as possible?

We are seeking a postdoctoral researcher with a mixed expertise in NLP, machine learning, cognitive sciences, and intention modelling to work with our international team of researchers and developers on any one or combination of these three areas.