

# Postdoc position – LS2N, Univ. Nantes, France

## Executive Function testing in Virtual Reality

### Context

The context is an ongoing collaboration between Hanyang University, University of Nantes, Nantes University Hospital, and Hanyang University Hospital on the use of VR environments for the testing of executive functions in VR. Several VR environments have been built, and will be tested with patients in Korea and France in the 1st semester of 2021.

### Description of the work

Based on the evaluation of several existing prototypes with Alzheimer and depressive patients, the candidate will design and develop a new integrated VR environment for the testing of multiple executive functions based on specific tasks achievement and behavioral data (head/hand movement, eye tracking...).

He/she will then design an experimental protocol to evaluate the VR environment with healthy subjects. This protocol will be run both in France and Korea to assess the cultural effects on the results. The analysis of the results should exhibit behavioral and psychological indicators for the testing of executive functions in VR.

If possible, these indicators will be then experienced with patients in clinical studies at the hospital.

### Dates

18 months beginning in the first semester of 2021.

### Environnement

**Nantes** (France): work in LS2N Lab at University of Nantes, in Halle 6 Ouest new building based at the heart of the Creative District of Nantes.

**Seoul** (Korea): a few weeks in Seoul at Hanyang University.

### Benefits

Net monthly salary > 2000€, depending on experience.

### Supervision

Pr. Yannick Prié / Dr. Toinon Vigier (University of Nantes)

Dr. Samuel Bulteau (Nantes University Hospital)

Pr. Gyu Hyun Kwon / Dr. Jieun Han (Hanyang University)

Dr. Ho Jin Choi (Hanyang University Hospital)

### Candidate

PhD in Computer Science, Cognitive Science.

Programming knowledge of immersive technologies and data analysis.

Autonomy, good written and oral communication skills.

### Contact

Send CV + motivation + references to [yannick.prie@univ-nantes.fr](mailto:yannick.prie@univ-nantes.fr) and [ghkwon@hanyang.ac.kr](mailto:ghkwon@hanyang.ac.kr)

Applications will be considered until the position is filled.