



## **Job offer: 1 post doc – Voice identity conversion of expressive speech**

### **Introduction to Ircam**

IRCAM is a non-profit organization that is associated to the Centre Pompidou (Centre national d'art et de culture Georges Pompidou). Its missions comprise research, production, and education related to contemporary music and its relation to science and technology. Within the STMS laboratory hosted at IRCAM specialized teams are conducting research and development in the areas of acoustics, sound signal processing, interaction, computer music and musicology. The present position is available in the analysis/synthesis team that conducts research on advanced signal processing algorithms and machine learning techniques for speech and music signal processing. IRCAM is located in the centre of Paris near the Centre Pompidou, at 1, Place Igor Stravinsky 75004 Paris.

### **TheVoice project**

TheVoice project addresses voice design for audiovisual production in the field of the creative, cultural, and entertainment industry. The facts are simple: today, the production of voices is exclusively carried out by humans in a sector almost exclusively digital, and extremely demanding in terms of quality. The scientific objectives of the project are to model the voices of professional actors, naturally expressive, in order to create innovative voice design solutions. This modeling will allow the realization of major scientific advances in the analysis and synthesis of expressive voices, with applications to automatic voice recommendation and voice conversion for the casting and the cloning of naturally expressive voices. The project will create a breakdown by the realization and the industrialization of innovative speech technologies for the production of voice content. The consortium, composed of recognized laboratories and industrialists, aims to consolidate a position of excellence for "Made-in-France" research and digital technologies, and to promote the French culture all over the world.

### **Position description**

She/He will contribute to TheVoice project by means of research into deep neural networks applied to voice identity conversion. She/He will also collaborate with the development team and participate in all activities related to the project (specifications, meetings, evaluation, reporting).

### **Required Experiences and Skills**

- PhD with excellent knowledge of and experience in speech and deep learning (CNN, GAN, etc...);
- Excellent knowledge of and experience in signal models and time/frequency representations of sound signals;
- Very proficient in Python (NumPy, SciPy), TensorFlow environment, and distributed computation (GPU) ;
- High productivity, capacity for methodical and autonomous work, creativity, good communication skills, rigor, and excellent programming style.



**Availability and duration**

12 months, as soon as possible

**Salary**

According to background and experience

**Applications**

Please send an application letter together with your resume and any suitable information addressing the above elements preferably by email to: [nobin\\_at\\_ircam\\_dot\\_fr](mailto:nobin_at_ircam_dot_fr).

**Deadline**

January, 31st, 2020