

COMPUTING COLLOQUIUM

THURSDAY, SEPTEMBER 21
10:30 a.m.
City Center Plaza 259

Igor Leturia

Director of Speech Technologies
at Orai - Elhuyar



Language and Speech Technologies for Basque in the Times of DNNs and LLMs

Basque has always had a very active presence in the field of language and speech technologies despite being a minority and less-resourced language. The presentation will show the strategies used by a language of these characteristics throughout the different ages of NLP focusing on current neural MT, ASR and TTS technology developed at Orai - Elhuyar and also ongoing works and approaches in the newest LLM paradigm.

Igor Leturia holds Engineering degrees in Computer Science and Systems Electronics from the University of Mondragon and a degree in Computer Science from the Paul Sabatier University of Toulouse. He also holds a Master's Degree and a Ph.D. in Language Technologies from the University of the Basque Country, for his thesis *The Web as Corpus of Basque*.

Since 2003, he has been working at Elhuyar Fundazioa in the department of Research and Development in Language Technologies for Basque, of which he was the Director from 2008 to 2014, and since 2014 he has been the director of the Speech Technologies area.

For years, his main research area has been text corpora and, in particular, the use of the web as a source of corpora. In recent years, he has been working on speech technologies, both ASR and TTS. In ASR, he has led the development of Aditu, an automatic transcription/subtitling service for the Basque language, which also allows the automatic translation of these transcriptions and subtitles into different languages. In the field of TTS, he has participated in the creation of neural TTS technology for Basque (monospeaker, multispeaker, translingual...). He is also involved in a project that aims to combine ASR, MT and TTS to provide automatic dubbing and speech-to-speech translation between Basque and other languages.

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