End-to-end speech recognition for assessing children learning to read

About Lalilo

Lalilo is a virtual assistant which helps educators teach primary school students how to read.

The startup was launched in 2016, with the goal of ending illiteracy with AI. In France 20% of the students who graduate from elementary school (*collège*) can't read proficiently enough to keep up with the academic demands of the classroom. In the US, that number goes up to 30%.

By providing differentiated learning to students, we want to drive that number down to 0. Our tool is already used by more than 81k teachers and 600k students, and growing!

To reach this goal, we have brought together experts in pedagogy, teachers, designers and scientists who work hand in hand to build the best classroom tools for students and educators.

Recently acquired by Renaissance, we are a team of 33 passionate, hard-working and fun individuals, based in Paris, New York, and San Francisco.

About the position

In Lalilo we have a read aloud exercise where students have to read aloud words or sentences. We use speech recognition to score their reading's recordings and detect potential reading mistakes. We plan on expending our use cases towards assessment, with longer recordings (1 min tasks) and a precision at the word level.

Your work will be to implement a baseline recognition system to model speech at the word level, using end-to-end architectures. You will then iterate on our existing phone-level acoustic model to leverage pronunciation information, highly valuable for the evaluation of read speech. You will have to implement the different solutions, evaluate them through rigorous experiments, and make the best one available for use by kids all over the world!

You will be part of the data team, that currently includes 8 people, and will work daily with Lucile and Morgane notably. To make your experiments, you will use the same framework as Lucile, our soon to be doctor who worked on the existing phone-level acoustic model. You will be able to improve your coding skills thanks to code reviews and peer programming sessions.

This internship will be in collaboration with the IRIT laboratory in Toulouse, in the SAMoVA team. You will be based in the Lalilo Paris office or in the IRIT Toulouse office, and will have regular trips (a few days per month) between offices to work with both parties.

We are looking for a 6 months internship, starting from February to April.

About you
We're looking for somebody who:

- Is rigorous in their work
- Is proactive
- Is autonomous
- Is interested in research
- Has a strong desire to learn

Required skills

- Python
- Theoretical knowledge in machine learning
- Technical English

Appreciated skills

- Pytorch
- Theoretical knowledge in speech processing and/or signal processing
- Interested in innovation for education

Recruitment process

- mandatory motivation letter
- screening call
- technical test
- fit interview
- reference calls

To apply

Apply through the [Welcome to the Jungle website](). Please submit your resume AND a cover letter explaining why you would like to join Lalilo. Applications without a cover letter will not be considered.