

# **AUTOMATIC SPEECH RECOGNITION USING THE SPHINX 4**

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## Abstract

In this thesis we study the Sphinx 4 speech recognition engine from Carnegie Mellon University with the intention to complete a basic speech recognition Trainer. The Trainer is a component of the Sphinx used to improve speech recognition accuracy for individual speakers. Currently, training for the Sphinx 4 must be done using the Sphinx 3.

First, I will overview speech recognition and the Sphinx project. This will include a run through of how a Sphinx 4 program recognizes speech. Next I will examine the models used by the Sphinx and explain how they are created or “trained”. Finally, I will examine training and discuss what is needed to complete a basic Trainer for the Sphinx 4.