

Title: Pronunciation Validation in Speech Therapy Application

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Abstract: A goal of this thesis is to design, create and test speech validation method based on current speech recognition algorithms. Resulting software is a speech therapy application for sounds or words training with feedback about pronunciation accuracy. Speech validation is based on CMUSphinx tools and on inaccurate pronunciation generation (using phonetic dictionary). Records with accurate and inaccurate pronunciations has been collected for training and testing purposes. It has been shown, that this design is not appropriate. Thanks to the software design, application can be easily extended by techniques, that could improve validation efficiency.

Keywords: speech validation, word recognition, dyslalia, speech therapy application