

Semester Thesis:

## What does personal prosody mean?

**Background:** The principal goal of speech synthesis is to make computers read arbitrary text as naturally as people do. Apart from that, it is also hoped that a computer can be made to speak like a specified person – if you close your eyes, you will think it is that person who is actually speaking, not anyone else. In order to realise the second goal, we need to deeply understand why in general everybody sounds unique.

Everybody has a vocal tract in unique shape, thereby resulting in unique voice characteristics. Obviously this is the principal reason. Meanwhile, everybody has his/her own way of speaking (i.e. personal prosody), which also contributes to the uniqueness. We have known that one's pitch and speaking rate are essential contributory factors in the uniqueness. Then what else?



**Task Description:** Then what else? You may say that someone always finishes saying a sentence with a high pitch. This is indeed likely to make him/her sound more unique. Therefore the main task of this semester thesis will be to conduct experiments to verify whether such guesses are essential contributory factors in the fact that everybody sounds unique in general.

**Requirements:** Programming skills and basic knowledge of speech processing would be of great help.

In case of interest, you may contact us by email and visit us afterwards. This web page provides you with more information about the entire Computer Engineering Group (TEC): <http://www.tec.ethz.ch/research.html>.

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