

HARVARD UNIVERSITY

FACULTY OF ARTS AND SCIENCES

SUMMER SCHOOL
Pre-College Program



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Making Computers Talk: Text to Speech CSCI P-14210 (33612)

July 25 - August 5, 2016

As computers become ubiquitous and we approach the vision of the Internet of Things, spoken interfaces become increasingly important. One key component is the ability for computers to respond with speech. This course leverages readily available tools to expose students to advanced computer science topics, culminating in the creation of synthetic voices. Exercises involve the representation and modification of sound, issues that arise in applying computers to linguistic problems, and machine learning.

I enjoyed having Andreas Bigger in my class. He approached the subject material with enthusiasm and asked good questions about the reading. Although I had the students install a number of open-source software packages on their computers to accomplish tasks for the course, and these tools sometimes acted inconsistently with other commonly used programs, Andreas persevered when things went wrong. He always approached the problems in an upbeat manner and accomplished the tasks. When other commitments in the Summer School program impacted his schedule, Andreas took responsibility by informing me of the issue and working with me to reschedule and reprioritize some of his course assignments. Although his program events filled the weekend when I was expecting students to record corpora for their synthetic voices, he managed to find time to create the recordings. He demonstrated flexibility, working around the issues in order to accomplish his goals. Along with another student, he advocated for covering the topic of automatic speech recognition in the lab section for the final lecture on applications. This showed an interest in taking charge in the direction of his studies. Overall, he accomplished the required tasks in the course, including the creation of a synthetic voice based on recordings he made of himself. In general, I felt that Andreas had a good attitude that allowed him to continue going and reach his goals regardless of temporary setbacks. I think this is an important quality to have when approaching open-ended topics.

The image shows a handwritten signature in cursive script. The signature appears to read 'Arthur R. Toth'. The ink is dark and the handwriting is fluid.

Arthur Toth
