

Data Annotation And Prosody Prediction In TTS

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Problem

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Overview

Related Word

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Summary

Overview

Problem

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Related Word

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Summary

Data Annotation

Data Annotation

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Prosody Prediction

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Summary

Prosody Prediction

Key Problems In Text Processing

- Neuro-Endotrainer tracking and evaluation
- Neuro-endoscopy tool tracking(Aux camera and Endoscopy camera)
- Micro-suturing skills assessment - effectiveness(images) and Dexterity(video - activity detection and scoring)
- Drilling Skill assessment effectiveness(images) and Dexterity(video - activity detection)

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Summary

Key Problems In Text Processing and Speech Processing

Key Problems In Speech Processing

Related Work and Literature review - I

The main focus so far has been only the Neuro-endotrainer

- It started with building background on Image Processing and Computer Vision:
 - Notes on DIA - Basics of image representation, filtering operations, Image Warping
 - Mooc on Udacity - Math behind Canny Edge detection and Hough Transform
 - Another Mooc on CV - just specific topics from that made me comfortable with the math. - eg: SIFT descriptor etc
 - Notes on CV that led me to study the math behind projective geometry - mainly Hartley and Zisserman
 - Getting used to coding in openCV

Suggested problems to work on

Currently the following problems are to be addressed

- Endotrainer related:
 - Identify tugging of the ring onto a peg.
 - Endoscopic Camera Evaluation - The tool is to be tracked and determined whether the tool is in the centre of the field or exiting the field and evaluate if it hits the peg.
- Micro-suturing related (Image and Video)
- Drill related (Image and Video)

THANKYOU

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Questions?

- Study MB water to understand peculiar properties it possesses.
- Running various simulations to test MB water and Monte Carlo/Molecular Dynamics simulation methods.
- Testing results from previously published journals.
- Research can be used as a teaching resource and source of information for scientific community.

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