Introduction
Preliminaries
Benchmarking
Improving accuracy
Conclusions

Automatically responding to customers

February 4, 2019

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- 2 Preliminaries
- Benchmarking
- 4 Improving accuracy
- Conclusions

- Introduction
 - Research question 1
 - Research question 2
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Existing benchmarks

- Braun et al.
- Snips (next slide)
- Burtsev et al.
- Botfuel

SNIPS demonstration

snips	I need a table in Sacaton at a gluten free restaurant	$\overline{\checkmark}$
🔷 api.ai	I need a table in Sacaton at a gluten free restaurant	×
Luis.ai	I need a table in Sacaton at a gluten free restaurant	×
🕮 wit.ai	I need a table in Sacaton at a gluten free restaurant	×
amazon alexa	I need a table in Sacaton at a gluten free restaurant	×

SNIPS own benchmark



Question and goal

- Can an open-source NLU benchmarking tool be created?
- Develop such a tool.

Improving accuracy

How hard can it be?

Question and goal

- Can accuracy for NLU be increased?
- Improve the accuracy

- Introduction
- 2 Preliminaries
 - Natural language processing
 - Deep learning
- Benchmarking
- 4 Improving accuracy
- Conclusions



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- 2 Preliminaries
- 3 Benchmarking
 - Datasets
 - Systems
 - Results
- 4 Improving accuracy
- Conclusions



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 - Research question 1
 - Research question 2

Research question 1

Research question 2