

# WANGCHUNSHU ZHOU

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## EDUCATION

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### **Beihang University, Beijing**

*September 2018 - Present*

Master in Computer Science

Department of Computer Science & Sino-Frence Engineering School

### **Beihang University, Beijing**

*September 2014 - July 2019*

Bachelor of General Engineering.

Department of Sino-Frence Engineering School

## CARRIER OBJECTIVE

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My ultimate goal is to understand human intelligence and I regard human language as one of the most important part of it. Believing in Feynman's famous quote, "What I cannot create, I do not understand.", I am working on teaching Machine Learning models to gain human intelligence and speak human language. More specifically, I am currently interested in the field of natural language generation, pre-trained language model, and its application.

## PROJECTS

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### **News topic identification and political leaning analysis.**

*September 2018 - December 2018*

State Key Laboratory of Software Development Environment, Beihang University

The project aims at building a text classification model to jointly identify the topic and the political leaning of the news article. We employed classical tf-idf + svm classifier, Bi-LSTM, and TextCNN to perform this task and utilized multi-task learning to mitigate the problem of little training data.

### **BERT-based Lexical Substitution**

*December 2018 - March 2019*

During internship in Microsoft Research Asia

We propose an end-to-end BERT-based lexical substitution approach which can propose and validate substitute candidates without using any annotated data or manually curated resources. Experiments show our approach performs well in both proposing and ranking substitute candidates, achieving the state-of-the-art results in both LS07 and LS14 benchmarks. Paper accepted by ACL 19 as a short paper.

### **Adversarial Text Generation**

*March 2019 - May 2019*

During internship in Microsoft Research Asia

We proposed a novel adversarial learning paradigm for adversarial text generation. Details omitted as the paper is currently in submission of Neurips 2019.

### **Dialogue System Personalization**

*July 2019 - September 2019*

During internship in Microsoft Research Asia

We proposed a novel approach to enable dialogue system personalization without relying on given persona description during inference. Details omitted as the paper is in submission of AAAI 2020.

### **Data Synthesis for Automatic Grammar Error Correction**

*July 2019 - September 2019*

During internship in Microsoft Research Asia

We proposed a novel data synthesis method for Automatic Grammar Error Correction. Details omitted as the paper is currently in submission of AAAI 2020.

## TECHNICAL STRENGTHS

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**Software & Tools**      Tensorflow, Python, Pytorch, Matlab, Latex, etc.

## PUBLICATIONS

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**BERT-based Lexical Substitution**

**ACL 19**

Wangchunshu Zhou, Tao Ge, Ke Xu, Furu Wei, Ming Zhou