# **Shangqing Tu**

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#### **EDUCATION**

Beihang University Beijing, China

**Bachelor of Computer Science and Technology** 

Sep. 2018-Jul. 2022

GPA: 3.8/4.0, 90.63/100

TOEFL: 103 (R29, L28, S22, W24)

Computer Skills: Proficient in Python, Java, C, C++, SQL, Verilog

#### **PUBLICATIONS**

Fangwei Zhu, **Shangqing Tu**, Jiaxin Shi, Juanzi Li, Lei Hou and Tong Cui.

TWAG: A Topic-guided Wikipedia Abstract Generator.

(ACL 2021, accepted to main conference, accepting rate : 21.3%)

Sizhe Zhang, Shangqing Tu, Zhipeng Sui, Shuo Gao.

Piezoelectric And Machine Learning-Based Technique For Classifying Force Levels And Locations Of Multiple Force Touch Events.

(IEEE FLEPS 2021, accepted as lecture presentation)

#### RESEARCH EXPERIENCE

### TWAG: A Topic-guided Wikipedia Abstract Generator

Research Assistant, Advisor: Prof.Juanzi Li, Tsinghua University

May. 2020-Feb. 2021

- The topic of each input paragraph is detected by a classifier trained on existing Wikipedia articles to divide input documents into different topics.
- The topic distribution of each abstract sentence is predicted, the sentence from topic-aware representations is decoded with a Pointer-Generator network.
- The model is evaluated on the WikiCatSum dataset, and the results show that TWAG outperforms various existing baselines and is capable of generating comprehensive abstracts.

# Piezoelectric And Machine Learning-Based Technique For Classifying Force Levels And Locations Of Multiple Force Touch Events.

Research Assistant, Advisor: Prof. Shuo Gao, Beihang University

Dec. 2020-Feb. 2021

- When fingers touch the piezoelectric panel, the charge generated by the PVDF membrane is amplified by the charge amplifier and becomes a voltage signal.
- After the voltage peaks for each channel have been acquired, three typical machine learning algorithms
  are employed to classify locations and force levels: LightGBM, Support vector machine (SVM), and
  Artificial neural network (ANN).

## **HONORS**

Scholarships for Outstanding First-class Learning at Beihang University

The Second Prize of National Physics Competition for College Students

The First Prize of Beijing Mathematical Modeling Intercollegiate Competition

2020