# Yingying Zhuang

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# **Education Background**

#### **Beijing University of Posts and Telecommunications**

9/2016 - 9/2020(expected)

Junior Student of E-Commerce Engineering

- **GPA:** 86.53/100
- Relevant Coursework: Engineering Mathematics (95), C Programming Basis (93), Java Programming (92),
- ➤ Probability Theory and Mathematical statistics(96), Discrete Techniques for Computing(92), Data Structures
- $\triangleright$  **GRE:** 151 (V)+169(Q)+3.0 (AW)

### **Queen Mary University of London**

9/2016 - 9/2020(expected)

Bachelor of Science (Engineering) with Honors; School of EECS London

➤ Joint Programme with Bejing University of Posts and Telecommunications (BUPT)

# **Publication**

Jie Zheng, Yingying Zhuang, Yuezhang Zheng, Andi Xia, *Music Genre Classification with Self-attention Mechanism*, 2019 International Computer Music Conference and New York City Electroacoustic Music Festival (ICMC-NYCEMF 2019). (submitted)

## Research Experience

#### **Visual Dialog Based on Neural Networks**

3/2019-Present

Beihang University Intelligent Computing and Machine Learning Lab

- Applied neural networks to deal with a visual dialog task in order to increase the accuracy of predicted answer options; Aimed to enhance the Multimodal Machine Learning association representation;
- Combined Glove and Elmo for better word representation;
- ➤ Used CNN with attention mechanism for image processing and Bi-LSTM for question processing as well as the content of history conversations.

## **Small-footprint Keyword Spotting on Microcontrollers**

11/2018 - 3/2019

Tsinghua University iVip Research Group

- Performed neural network architecture evaluation and exploration for running Key Word Spotting on resource-constrained microcontrollers for reducing energy consumption;
- > Trained a new KWS model based on GRU:
- Designed a quantification model applying ADMM algorithm to compress space;
- Optimized neural network architecture with hardware resulting efficiently on memory and compute constrained microcontrollers;

#### **Music Genre Classification with Self-attention Mechanism**

7/2018 - 11/2018

Beijing University of Posts and Telecommunications

- ➤ Applied deep learning to Music Genre Classification tasks;
- Designed a transformer classifier to classify music genre instead of traditional RNN model;
- > Used hierarchical topology consistently with the layering of music in the time and frequency domains.

#### Honors And Awards

>	Honorable Mention of Mathematical Contest In Modeling	2018
$\triangleright$	Second Class Scholarship, BUPT	2018
$\triangleright$	First Class Scholarship, BUPT	2017
$\triangleright$	Merit Student (twice), BUPT	2017 & 2018

#### **Others**

- **Computer Skills:** Mastered Java, C, Python, MATLAB.
- ➤ Machine Learning Platforms: Pytorch, Tensorflow