

XUEQING WU

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EDUCATION

University of Science and Technology of China

Sep. 2016 - Jun. 2020

BS in Electronic Engineering & Information Science

Member of Honors Program in Computer and Information Science and Technology

Member of Honors Program in AI

GPA: 4.06/4.30 (Ranking: 1/363)

PUBLICATIONS

Yixing Zhu, **Xueqing Wu**, Jun Du. *Adaptive Period Embedding for Representing Oriented Objects in Aerial Images*. IEEE Transactions on Geoscience and Remote Sensing. 2020 (To Appear). [arxiv](#)

RESEARCH EXPERIENCE

Data Augmentation for Neural Machine Translation

Dec. 2019 - Present

Research Intern

Machine Learning Group, MSRA

- Generate new data by mixing multiple samples with little computational overhead
- Improve the BLEU on IWSLT datasets and low-resource FLORE datasets by a non-trivial margin
- Analyze the key designs of our methods through an extensive ablation study

Long Document Modeling

Aug. 2019 - Sep. 2019

Research Intern

ScAi Lab, UCLA

- Proposed sparsified Transformer to decrease memory consumption and model long documents
- Designed a semantic-aware pooling module to increase the receptive field
- Attained competitive results on IMDB dataset

Chinese Handwritten Textline Recognition

Mar. 2019 - Sep. 2019

Research Intern

NEL-SLIP, USTC

- Compared DNN-HMM, CTC and encoder-decoder models via extensive experiments
- Featured a data augmentation method that utilized images of isolated words and a large Chinese corpus to construct textline images
- Improved the CTC architecture and increased the accuracy from 80.1% to 87.3%

Oriented Object Detection in Aerial Images

Mar. 2019 - Jun. 2019

Research Intern

Challenge-2019 on Object Detection in Aerial Images, CVPR

- Improved the representation of oriented objects based on the periodicity of tilt angle
- Proposed Length Independent IoU (LIIoU) to increase the recall for long objects
- Won the 1st place in oriented object detection and the 2nd place in horizontal object detection

COMPETITIONS

First Place, Task 1, Challenge-2019 on Object Detection in Aerial Images

Apr. 2019

Second Place, Task 2, Challenge-2019 on Object Detection in Aerial Images

Apr. 2019

Meritorious Winner, MCM / ICM

Jan. 2019

First Prize, Robogame, USTC

Nov. 2018

Second Prize, Anhui Province, National Undergraduate Electronic Design Contest

Jun. 2018

Gold Medal, Software Track, International Genetically Engineered Machine Competition

Nov. 2017

SCHOLARSHIPS & HONORS

Honorary Rank (Top 5%), USTC	Nov. 2019
Guo Moruo Scholarship (Highest honor at USTC, top 1%), USTC	Oct. 2019
Tang Lixin Scholarship , Tang Lixin Education Development Foundation	Oct. 2018
National Scholarship , China	Oct. 2018
Outstanding Student Scholarship , USTC	Oct. 2017 & Oct. 2016

SKILLS

Languages	Python, MatLab, C++, Java, LaTeX
Deep Learning Tools	PyTorch, PyTorch Geometric, PyTorch Transformers, Tensorflow

PROFESSIONAL EXPERIENCE

Research Intern , Machine Learning Group, Microsoft Research of Asia	Oct. 2019 - Present
Research Intern , ScAi Lab, UCLA	Jul. 2019 – Sep. 2019
Teaching Assistant , Electronic Design Practice I Course, USTC	Feb. 2019 - Jun. 2019

EXTRACURRICULAR ACTIVITIES

Vice Director , College Debate Team, USTC	Sep. 2017 - Present
First Prize , USTC Debate Competition	Nov. 2016
Class Commissary in Charge of Psychology , USTC	Sep. 2016 - Sep 2017