

XIAOHAN ZOU

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EDUCATION

Boston University

M.S. in Computer Science

Boston, MA, USA

09/2021 – 01/2023

Tongji University

B.Eng. in Software Engineering

Shanghai, China

09/2016 – 07/2020

PUBLICATIONS AND SUBMITTED MANUSCRIPTS

- **Xiaohan Zou**, Changqiao Wu, Lele Cheng, and Zhongyuan Wang. "Rethinking Fine-grained Semantic Alignment in Video-Text Retrieval", **submitted to IJCAI 2022**.
- **Xiaohan Zou**, Cheng Lin, Yinjia Zhang, and Qinpei Zhao. "To be an Artist: Automatic Generation on Food Image Aesthetic Captioning", **ICTAI 2020**. (Acceptance Rate: 25%, **Oral Presentation**) [[Paper](#)] [[Code](#)]
- **Xiaohan Zou**. "A Survey on Application of Knowledge Graph", **CCEAI 2020**. [[Paper](#)]

PROFESSIONAL EXPERIENCE

Machine Learning Engineer Intern, Kuaishou Technology, Beijing, China

07/2021 – Present

- Devised a new model-agnostic formulation for fine-grained cross-modal semantic alignment and subsumed the recent popular works into the proposed scheme
- Proposed a video-text retrieval method which is competitive when compared with the SOTA approaches with heavy model design by only altering the similarity function, **submitted to IJCAI 2021**
- Developed a PyTorch library for video-text retrieval which is benefiting the group members' research work

PROJECTS

Product Description Generation, Champion of Deecamp 2021 Language Track 06/2021 – 08/2021

- Incorporated product attributes, personalized information and external knowledge to T5 pre-trained model using transformer and bidirectional attention to generate interesting and informative product descriptions
- Built the frontend of a fancy cross-platform website for interacting with our model using Vue and uni-app

Food Image Aesthetic Captioning, Tongji University, [Project Page](#)

04/2020 – 06/2020

- Proposed a novel framework consisting of a single-attribute captioning module and an unsupervised text summarization module for generating aesthetic captions for food images, **published in ICTAI 2020**
- Designed a data filtering strategy inspired by TF-IDF method for building a [dataset](#) for this new task
- Designed two new evaluation criteria to assess the novelty and diversity of the generated captions
- Outperformed baselines and existed methods substantially in terms of diversity, novelty and coherence

Semi-Supervised Machine Translation, Peking University

07/2018 – 08/2018

- Utilized the structure duality to boost the learning of two dual tasks based on shared hidden space
- Designed two denoising auto-encoders consisting of encoders and decoders of two traditional Seq2Seq neural machine translators to make use of unpaired data
- Outperformed strong baselines by 1.0 - 2.9 BLEU on IWSLT'15 and WMT'14 dataset

AWARDS AND HONORS

Bronze, China Collegiate Programming Contest (CCPC)

2018

Second Prize, China Mathematical Contest in Modeling (CUMCM)

2017, 2018

SKILLS

Programming Languages: Python, JavaScript/TypeScript, HTML/CSS, Java, C/C++, MATLAB

Tools and Frameworks: Git, PyTorch, Keras, scikit-learn, Linux, Vue, React, Django, \LaTeX

Languages: Chinese (native), English (proficient, TOEFL: 106, GRE: 322)