### **Yiming XU**

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#### **EDUCATION**

2015~2019 Henan University

BEng Computer Science and Technology

Overall Average: 85%

#### **SKILLS AND QUALIFICATIONS**

**Computer**: Proficiency in:

**Programming Languages** 

Python, C, C++, C# MATLAB, Java, Scala, R:

PHP, HTML+CSS, SQL, ASPNET, and LATEX.

□ Platform & tools

TensorFlow, PyTorch, MATLAB;

Pycharm, Atom, Sublime Text, Eclipse, Git; Ubuntu Linux mint. Windows, MacOS etc.

Language: IELTS (19/12/2019): Overall 6.0, Listening 5.5, Reading 5.5, Writing 6.5,

Speaking 6.0

#### **PUBLICATIONS**

Title: Fine-Grained Label Learning via Siamese Network for Cross-modal

Information Retrieval (First Author)

Journal: International Conference on Computational Science

Released time: 06/2019

Xu, Y., Yu, J., Guo, J., Hu, Y., & Tan, J. (2019, June). Fine-Grained Label Learning via Siamese Network for Cross-modal Information Retrieval. In International Conference on Computational Science (pp. 304-317). Springer, Cham. [*Link*]

Title: Low Rank variation Dictionary and Inverse Projection Group Sparse Representation Model for Breast Tumor Classification (Under Review)

Yang, X., Jiang, X., Wu, W., Zhang, J., Long, D., Zhou, F., & Xu, Y. (2018). Low Rank Variation Dictionary and Inverse Projection Group Sparse Representation Model for Breast Tumor Classification. *arXiv preprint arXiv:1803.04793*. [Link]

#### **INTERNSHIP EXPERIENCE**

## Intern of Institute for Information Engineering, Chinese Academy of Science (CAS) Sep.2018~now

- Design a siamese network to learn fine-grained labels for both the positive and negative examples to capture the degrees of hardness, thus enhancing cross-modal correlation learning.
- Introduced these labels to a rank-based pairwise similarity loss function.
- Achieved significant improvements on the retrieval performance by incorporating with fine-grained labels.

#### PROJECT EXPERIENCE

**Video Events & MOOC Content Search** *github.com/YimingXu1/videoEventSearch* **Intern of Institute for Information Engineering, Chinese Academy of Science**Jul.2019 ~ Oct.2019

• Sampled frames from each video, every few seconds and generates natural language

- captions for each frame using DenseCap.
- Indexed these captions as documents along with the corresponding video URL and timestamp.
- Retrieved the caption that best matches the user's search query, along with the video and the precise timestamp, within the video associated with the caption.

### **Automatic Check-in System with Face Recognition** *github.com/YimingXu1/ROSTFFaceRec* **School of Mathematics and Statistics, Henan University**

Dec.2017~Jan.2018

- Trained Deep Neural Networks for the classification of over 10 people with decent accuracy
- Used Raspberry Pi for face recognition and employed Deep Learning models

#### Deep Learning for Face Recognition School of Mathematics and Statistics, Henan University

Dec.2017~Jan.2018

- Used Tensorflow for the evaluation of Deep Learning methods for face recognition with occlusion
- Constructed Convolutional Neural Networks (CNNs)
- Evaluated on face samples in Augmented Reality (AR)

# Vision-Guided Navigation of Autonomous Cars with Deep learning Department of Computer Science, Henan University

Mar.2017~Sep.2017

- Analysed and reconstructed of 3D environment from images captured by Kinect 2
- Implemented and compared some state-of-the-art SLAM methods

#### HONORS AND AWARDS

Outstanding graduate thesis Award, Henan University (1%)	07/2019
Excellent Graduation Interns, Henan University	07/2019
University Merit Award, Henan University	2018
Second Prize (Province-wide), Mathematical Contest in Modelling (MCM/ICM), USA	2018
Provincial Third Prize & University Outstanding Award, Internet+ Innovation	2017
Contest	
Provincial First Prize, China Undergraduate Contest in Mathematical Modelling	2016
Provincial Third Prize, Lan Qiao Cup Undergraduate Java Programming Contest	2016