Kexin Ding

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Summary

- Strong and pure enthusiasm in research. Especially in Computer Vision and Deep Learning.
- Basic theoretical knowledge in Deep Learning.
- Still attempting to improve practical skill .
- Have a relatively solid background in programming and mathematical theory
- Experience with report writing and demonstrated skills in academic communication.

EDUCATION

Lehigh University   *Pennsylvania, US*
M.S. in Computer Science; Overall GPA:3.50/5.00   *08/2017-05/2019(Expected)*
Xidian University   *Xi'an, China*
B.S. in Intelligent Science & Technology; Overall GPA: 80/100, Major GPA 85/100   *09/2013-06/2017*
(Minor: Computer Science)

RESEARCH PROJECTS

- **Deep Attention Model for Multi-instance Relation Extraction**   Lehigh University, US

  Supervisor: Prof Sihong Xie   *08/2018 – now*

  Description:
    - Provided an Attention-based Bidirectional LSTM network for multi-instance relation extraction.
      (Under preparing the paper and will submit it later.)

  Contribution:
    - Generated dataset from raw data. And labeled for the mentions in the dataset.
    - Modified the attention-based bidirectional-LSTM model from the reference paper and trained the LSTM network by using our dataset.
    - Doing Hyper-parameter optimization to get a better result.
    - Evaluate the model by accuracy and f1-score and compared the result with other models.

- **Deep Network for Image Sentiment Analysis**   Lehigh University, US

  Supervisor: Prof Xiaolei Huang   *01/2018 – 05/2018*

  Description:
    - Reproduced and modified the method in the reference paper.

  Contribution:
    - Generated CNN architecture mentioned in the reference paper.
    - Load VGG16 model with the pre-trained weights and use it as a start point in CNN model.
    - Trained CNN model by Twitter image dataset

- **Kaggle Competition: MOOC Dropout Prediction**   Lehigh University, US

  Supervisor: Prof Ting Wang   *11/2017 – 12/2017*

  Description:
    - Generated a multi-algorithm prediction system and make a prediction for dropout probability.

  Contribution:
    - Data preprocessing: generated different artificial feature by observed students early course activities and found the relationship between the original dataset.
    - Built a predictor (contains different machine learning algorithms: kmeans, Xgboost, randomforest) that can predict the probability of a student will drop out an enrollment.
    - Utilized grid search to achieve a better performance.

- **Image Caption**   Lehigh University, US

  Supervisor: Prof Mooi Choo Chuah   *10/2017 – 11/2017*

  Description:
    - Modified a CNN and LSTM combined model to do image caption.
  Contribution:
    - Built a model by utilizing CNN to image and LSTM to word to achieve the image/word-level feature.
    - Trained model by using flickr30k.
    - Designed a function to generate caption for selected image.

- **Human Activity Recognition**   Lehigh University, US

  Supervisor: Prof Mooi Choo Chuah   *11/2078 – 12/2017*

  Description:
    - Generate simple neural network to solve human activity recognition.
  Contribution:
    - Generate different neural network(LSTM and bidirectional-LSTM) to recognize human activity.
    - Trained model by using UCI HAR dataset
    - Evaluate the result by confusion matrix.
    - Compare and analysis different models

INTERNSHIPS

Intelligent Chip Engine Tech Co. Ltd.   **Beijing, China**
Image Algorithm Engineer   **07/2016-09/2016**
- Designed and modified the algorithms related to image/video intelligent analysis and processing.
- Conducted algorithm code implementation, optimization and transplantation.

LEADERSHIP/ACTIVITIES

- Director of Organization Dept. of College League Committee   **09/2014-06/2015**

HONORS/AWARDS

- One-Subject Scholarship, Xidian University   **09/2015&09/2016**
- 3rd Prize in "Xinghuo Cup", School of Electrical Engineering   **09/2014**
- Excellent Student Leader, Xidian University   **05/2014**

LANGUAGES/SKILLS/HOBBIES

Computer Skills: Python, Java, Linux, C, Scala, Charmm, Microsoft word, Microsoft excel
Framework: Scikit-learn, Keras, Tensorflow
Language Skills: English, Mandarin