Mengjun Leng

2686 Murworth Dr. # 302, 77054 ch.mengjunleng@gmail.com (713)-392-7905

OBJECTIVE A position related with machine learning (deep learning), or computer vision
Comfortable with algorithm development and software development

SKILLS Languages: C/C++, Python, Matlab
Tools: Caffe, Tensorflow, MatConvNet; OpenCV, Scikit-learn, Petuum

EXPERIENCE

Deep Learning Intern, Cadence Design Systems, San Jose, CA 05. 2017- 08. 2017

- Benchmark the runtime speed of deep learning tools (Caffe, Tensorflow, MatConvNet, Matlab deep learning Toolbox), on single GPU, multiple GPU and multiple GPU across servers.
- A short talk about part of this project on YouTube: Part A, Part B.

EDUCATION

Ph.D. Candidate in Computer Science 08. 2013- 10. 2018 (Expected)
University of Houston GPA: 3.87 Houston, TX, US
Research Interests: Machine Learning; Computer Vision

B.Sc. in Electronics and Information Engineering 09. 2009- 06. 2013
Huazhong University of Sci. &Tech. GPA: 88/100, Rank: 8/171 Wuhan, Hubei, P.R. China

KEY ACDEMIC PROJECTS

Original Research Projects:

- Confidence-driven Network for Point-to-Set Matching, (**Python, Caffe**)
  Developed a deep framework to extract signature for image and video with confidence measurement
  Tested on IJB-A and UHDB-31 dataset for **image-video face retrieval**
  Increase at least 1% recognition accuracy on average, and 3% for extreme poses
- Joint Prototype and Metric Learning for Image-set Classification, (**C, Matlab**)
  Designed the Set-based Prototype and Metric Learning algorithm to compress video information
  Tested on YouTube Face dataset for **video face recognition**
  Increased at least 6% recognition accuracy, reducing around 50% of the computational cost

Course Projects:

- Computer Vision: Multimodal Deep Boltzmann Machine for Image Retrieval, (**Python,** DeepNet)
  Built the multi-modal Deep Boltzmann Machine and applied to **text-image retrieval**
  Increased the mean average precision on MIR Flickr from 49% to 60%
- Operating System: Distributed Metric Learning, (**Petuum, C++**)
  Embedded the machine learning algorithm we developed to the Petuum platform
  Test the performance on distributed operating system and achieved close to linear speedup

REFEREED PUBLICATIONS

1. **M. Leng**, N. Sarafianos, and I.A. Kakadiaris, "Confidence-Driven Network for Point-to-Set Matching: Application to Multi-probe Face Identification ", CVPR 2018 (under review)
2. **M. Leng**, P. Moutafis, and I.A. Kakadiaris, "Joint prototype and metric learning for image set classification: Application to video face identification," IVCJ 2017.
3. P. Moutafis, **M. Leng**, and I.A. Kakadiaris, "Regression-based Metric Learning", ICPR 2016
4. P. Moutafis, **M. Leng**, and I.A. Kakadiaris, "An overview and Empirical Comparison of Distance Metric Learning Algorithms," IEEE Transactions on Cybernetics, 2016.
5. **M. Leng**, P. Moutafis, and I.A. Kakadiaris, "Joint Prototype and Metric Learning for Set-To-Set Matching: Application to Biometrics", BTAS 2015. (Oral, selected as the best of biometrics, 2016)

SELECTED AWARDS

- **2016** Best Junior Ph.D. Student, UH