Ziqi Pang

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EDUCATION

Peking University (PKU) Beijing, China

B.S. in Computer Science **GPA**: **3.71 / 4.0** (Top 15%) **Sept 2016 - June 2020**

- **Related Coursework**: Data Structures and Algorithms, Probability and Statistics, Operating Systems, Machine Learning, Parallel Computing, Computer Vision, etc.
- **Honors & Awards*:*** M Prize in Mathematical Contest in Modeling (*Jan. 2019, Top 1% ~10% Worldwide*); 2nd Prize in Beijing Undergraduates' Math Competition (*Oct. 2017*); Guanghua Scholarship (*Dec. 2017, Top 10% Overall in School*); Outstanding Student Award (*Sept. 2017, Sept. 2018*); Founder Scholarship (*Nov. 2018, Top 10% Overall in School*)

RESEARCH INTEREST

Computer Vision; Machine Learning; Few-Shot Learning and Its Applications in Computer Vision

RESEARCH EXPERIENCE

Robotics Institute, Carnegie Mellon University Pittsburgh, PA

Research Intern for Prof. Martial Hebert **June 2019 - Aug 2019**

- Created a few-shot learning benchmark from *ADE20K* to imitate realistic conditions of long-tail distribution, multiple information sources
- Explored representation learning from multiple information sources by multi-task learning and curriculum learning
- Improved few-shot learning accuracy by 10% to 20% relatively
- Paper submitted to *Computer Vision and Pattern Recognition 2020* (CVPR2020)

Vision and Media Computing Group, Peking University Beijing, China

- Multi-Source Pose Guided Person Image Generation **Sept 2018 - May 2019**

Research Intern for Prof. Shiliang Zhang

- Proposed geometric based preprocessing operations to preserve the salient visual details from source images.
- Combined information from multiple source images into a single target using a self-supervised learned confidence.
- Superseded the visual quality of the state-of-the-art on *Market-1501* and *CUHK-03.*

-Unsupervised Feature Learning for Person Re-Identification **June 2018 - Sept 2018**

Research Intern for Prof. Shiliang Zhang

- Leveraged instance-level visual similarity for unsupervised representation learning for Person Re-ID.
- Reduced the amount of required training data for downstream tasks, with only 40% annotation needed during the fine-tuning process.

RELEVANT PROJECTS

Multi-View Person Image Generation [**Graduate Computer Vision**] **Sept 2018 - Jan 2019**

- Explored GAN, VAE, Auto-Encoder to generate realistic and detail-sufficient human images.
- Implemented multi-view synthesis with self-learned confidence to combine multiple source images into a single target image.

Relational Inference [**Probabilistic Graphical Model**] **June 2018 - July 2018**

- Inferred paper categories in a citation network using the Markov random field.
- Achieved comparable performance to the state-of-the-art on the public CORA dataset with accuracy more than 80%

EXTRACURRICULAR ACTIVITIES

Forum for American-Chinese Exchange at Stanford University, *Organizer* **Mar 2017 - Mar 2019**

Introduction to Computer System (Same as CMU 15213), *Teaching Assistant* **Sept 2018 - Jan 2019**

SKILLS

Skills: Python, C++, Deep Learning Toolkits (PyTorch mainly)