

CHUNHUI LIU

Master Student in Computer Vision, Carnegie Mellon University

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🔗 echo960.github.io in LinkedIn Profile 🏠 Github Profile

RESEARCH EXPERIENCE

Applied Scientist Intern

Amazon AWS Rekognition

📅 May 2019 – Aug 2019

📍 Seattle, WA, U.S.A

Spatial Temporal Action Localization

- Design a balanced training scheme to deal with long-tail action data.
- Design a deep index module to modeling temporal information selection. <Caffe2 in Python>

Research Assistant

Wangxuan Institute of Computer Technology, Peking University

📅 Feb. 2016 – Jul. 2018

📍 Beijing, China

Advisor: Jiaying Liu, Associate Professor, PKU

Skeleton-based Action Recognition and Online Detection

- Proposed a LSTM-based Temporal Perceptive Network with short-term kernel to capture detailed action feature. This method win the ACCV2016 skeleton-based action recognition workshop. <Keras>
- Proposed a LSTM-based online network to detect action intervals and forecast action occurrences synchronously. <Lasagne in Python>
- Built a largest skeleton-based action dataset for continues action detection, which was used for IEEE ICME 2017 workshop.
- Published 3 paper in ACM Multimedia W 2017, BMVC 2017, and ICASSP 2017 (2 first author, 1 second author); Filed one pending-patent in China. (first author)

Research Summer Intern

Robotics Institute, Carnegie Mellon University

📅 Jun. 2017 – Sep. 2017

📍 Pittsburgh, PA, U.S.A

Advisor: Deva Ramanan, Associate Professor, CMU

- Proposed a pixel-wise non-parametric method to interpret pixel-wised CNNs based on Nearest Neighbors. Technical Report <Tensorflow in Python>

SELECTED PROJECTS

Embedded Pedestrian Tracking and Detection

Carnegie Mellon University, Capstone Project

📅 Feb 2019 – Ongoing

Advisor: Kris Kitani, Associate Research Professor, CMU

- Developed a real-time pedestrian tracking system, MoSiamRPN.

Mixed-Reality Educational System for Children

NoRILLA

📅 Feb 2019 – Aug 2019

Advisor: Nesra Yannier, Postdoctoral Fellow, CMU

- Developed vision module for NoRILLA education system, a patented mixed-reality educational system bridging physical and virtual worlds to improve STEM learning for children in primary schools.

SELF INTRODUCTION

I have experience in modeling human in the world using computer vision and machine learning techniques. My previous work mainly focused on skeleton-based action recognition, online action detection, spatial-temporal action localization, and pedestrian tracking.

I am also familiar with Generative Adversarial Networks, Object Detection, Weakly Supervised / Unsupervised Learning, Visual Question Answering.

SKILLS

PyTorch	Caffe2	●●●●●	
TensorFlow	Keras	Theano	●●●●●

Python	C	●●●●●	
C++	LaTeX	JAVA	●●●●●
HTML	JavaScript	Lisp	●●●●●

Deep Learning	Algorithm Design	●●●●●	
Operation System	Networking	●●●●●	

EDUCATION

M.Sc. in Computer Vision

Carnegie Mellon University

📅 Aug. 2018 – Dec. 2019 📍 Pittsburgh, U.S.A

– GPA: 4.17/4.0

B.Sc. in Computer Science, Summa Cum Laude

Peking University

📅 Sep. 2014 – Jun. 2018 📍 Beijing, China

– GPA: 3.59/4.0

- Outstanding Graduation Award of Beijing
- Excellent Research Award of Peking University
- Outstanding Student Award of Peking University

PRIZE

🏆 **ACCV Workshop Winner**
Large Scale 3D Human Activity Analysis Challenge in Depth Videos, 2016

🏆 **Meritorious Prize**
The Mathematical Contest in Modeling (MCM), U.S.A, 2016

🏆 **Bronze Prize**
National Olympiad in Informatics (NOI), China, 2013