Kuo-Hao Zeng

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https://kuohaozeng.github.io

Seeking a PhD Placement starting in Fall 2018 - 25 years old

Education

2016–2017 **Stanford University - Computer Science Major**, *Computer Vision, Machine Learning*.
Visiting Student in Vision Lab
Supervised by Dr. Juan Carlos

2014–2017 **National Tsing Hua University - Electrical Engineering Major**, *Computer Vision*.
Master Student in Vision Science Lab
Supervised by Prof. Min Sun
GPA: 4.3/4.3
Rank: Top 1%
Graduate with honors: Member of Phi Tau Phi Scholastic Honor Society of the Republic of China

2010–2014 **National Sun Yet-Sen University - Mechanical and Electromechanical Engineering Major**.
GPA: 88.46/100, 3.64/4.0 (overall); 88.73/100, 3.7/4.0 (major); 93.29/100, 3.9/40 (last-60)
Rank: Top 12.5% (7th/56)

Publication

Submitted **Kuo-Hao Zeng**, De-An Huang, Juan Carlos Niebles, Min Sun, "Anonymous". *Anonymous*.

Journal Min Sun, **Kuo-Hao Zeng**, Yen-Chen Lin, Ali Farhadi, "Semantic Highlight Retrieval and Term Prediction". *IEEE Transactions on Image Processing*.

Conference Hung-Jui Huang, Tsun-Hsuan Wang, Juan-Ting Lin, Chan-Wei Hu, **Kuo-Hao Zeng**, Min Sun, "Omnidirectional CNN for Visual Place Recognition and Navigation". *ICRA 2018*.

Shih-Han Chou, Yi-Chun Chen, **Kuo-Hao Zeng**, Hou-Ning Hu, Jianlong Fu, Min Sun, "Self-view Grounding Given a Narrated 360 Video". *AAAI18'*.

Kuo-Hao Zeng, William B. Shen, De-An Huang, Min Sun, Juan Carlos Niebles, "Visual Forecasting by Imitating Dynamics in Natural Sequences". *ICCV17'*, **Spotlight**.

Kuo-Hao Zeng, Shih-Han Chou, Fu-Hsiang Chan, Juan Carlos Niebles, Min Sun, "Agent-Centric Risk Assessment: Accident Anticipation and Risky Region Localization". *CVPR17'*, **Spotlight**.

Kuo-Hao Zeng, Tseng-Hung Chen, Ching-Yao Chuang, Yuan-Hong Liao, Juan Carlos Niebles, Min Sun, "Leveraging Video Descriptions to Learn Video Question Answering". *AAAI17'*.

Kuo-Hao Zeng, Tseng-Hung Chen, Juan Carlos Niebles, Min Sun, "Title Generation for User Generated Videos". *ECCV16'*.

Kuo-Hao Zeng, Yen-Chen Lin, Ali Farhadi, Min Sun, "Semantic Highlight Retrieval". *ICIP16'*.

Workshop Shih-Han Chou, Yi-Chun Chen, **Kuo-Hao Zeng**, Hou-Ning Hu, Jianlong Fu, Min Sun, "Self-view Grounding Given a Narrated 360 Video". *ICCV17'*.

Tseng-Hung Chen, **Kuo-Hao Zeng**, Wan-Ting Hsu, Min Sun, "Video Captioning via Sentence Augmentation and Spatio-Temporal Attention". *ACCV16'*.

Kuo-Hao Zeng, Yen-Chen Lin, Ali Farhadi, Min Sun, "Viralets: Learning from Viral Videos to Identify Semantic Highlight in Personal Videos". *CVPR15'*.

Domestic Conference **Kuo-Hao Zeng**, Tseng-Hung Chen, Ching-Yao Chuang, Yuan-Hong Liao, Juan Carlos Niebles, Min Sun, "BRAIN4VQA: Video Question Anwsering via Deep Networks". *CVGIP16'*, **Best Paper Award**.

Kuo-Hao Zeng, Yen-Chen Lin, Ali Farhadi, Min Sun, "Semantic Highlight Detection in Viral Videos". *CVGIP15'*, **Best Paper Award**.

Honors and Awards

2016 **Ministry of Education Republic of China (Taiwan) Scholarship (2016) for visiting Stanford Vision Lab**, *Ministry of Education Republic of China (Taiwan)*.

Student Travel Award for ICIP, *IEEE*.

Member of Phi Tau Phi Scholastic Honor Society of the Republic of China, *Taiwan*.
Top 3% Students per year in College of EECS at NTHU.

Digital Drift Best Paper on Deep Learning for Visual Analysis - 2nd place, *CVGIP*.
Paper Title: BRAIN4VQA: Video Question Anwsering via Deep Networks.

2015 **NovaTek Scholarship**, *NovaTek*.

Best Paper Award in 28th IPPP Conference on CVGIP, *CVGIP*.
Paper Title: Semantic Highlight Detection in Viral Videos.

2014 **MediaTek summer intern final group project presentation - 2nd prize**, *MediaTek*.

2013 **NSYSU Outstanding Undergraduate Project**, *NSYSU*.

2010 – 2014 **Excellent Student Awards (amount to 2 semesters)**, *NSYSU*.
Awarded to top 5% of students in each department of National Sun Yat-Sen University for each semester.

Research Experience

2016–2017 **Vision Lab**, *Stanford University*, Computer Vision, Machine Learning, Deep Learning.
Video Representation Learning.
Video Anticipation.
Risky Assessment in Accident Video.

2014–2017 **Vision Science Lab**, *NTHU*, Computer Vision, Machine Learning, Deep Learning.
Video Description, Question-Answering and Dialog System.
Large Scale Video Data Collection.
Video Event Recognition, Summarization.

2013–2014 **Bio-Medical Micro Electro Mechanical Systems Lab**, *NSYSU*, Signal Processing, Statistics.
The Correlation between Heart Rate Variability and Apnea-Hypopnea Index is BMI Dependent.
The Relation between Vertical Ground Reaction Force and Heart Rate during Treadmill Running.

Experience

Fall 2015 **Teaching Assistant of Computer Vision**, *NTHU (Graduate School)*, Hsinchu, Taiwan.
Matlab/Python environments

Spring 2015 **Teaching Assistant of Signal and System**, *NTHU*, Hsinchu, Taiwan.

Summer 2014 **MediaTek Summer Intern**, *MediaTek*, Hsinchu, Taiwan.
Developping a "Control and Command System" demonstrator (Hardware and Software) for Fiber-optic communication IC and Verification. *C++/Perl/Matlab environments*

Summer 2013 **HIWIN Summer Intern**, *HIWIN*, Taichung, Taiwan.
Verify and Test Harmonic Drive.
Matlab environment

Selected Term Projects

Project Computer Vision for Visual Effects: https://sites.google.com/site/computervisionvisualeffectsg11/home.

Challenge Microsoft - MSR Video to Language Challenge: http://ms-multimedia-challenge.com/leaderboard.

Programming Skills

Languages C, C++, C#, Python, Perl

Library MPI, OpenMP, Pthread, Cuda, OpenCV, LIBSVM, Caffe, TensorFlow, Theano, PyTorch

Simulation Matlabe, HSPICE