Kuo-Hao Zeng

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.

 $\mathsf{GPA:}\ 88.46/100,\ 3.64/4.0\ (\mathsf{overall});\ 88.73/100,\ 3.7/4.0\ (\mathsf{major});\ 93.29/100,\ 3.9/40\ (\mathsf{last-60})$

Rank: Top 12.5% (7th/56)

Publication

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". *AAAI 2018*.

Kuo-Hao Zeng, William B. Shen, De-An Huang, Min Sun, Juan Carlos Niebles, "Visual Forecasting by Imitating Dynamics in Natural Sequences". *ICCV 2017*, **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". *CVPR 2017*, **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". *AAAI 2017*.

Kuo-Hao Zeng, Tseng-Hung Chen, Juan Carlos Niebles, Min Sun, "Title Generation for User Generated Videos". *ECCV 2016*.

Kuo-Hao Zeng, Yen-Chen Lin, Ali Farhadi, Min Sun, "Semantic Highlight Retrieval". *ICIP* 2016.

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". *ICCV 2017*.

Tseng-Hung Chen, **Kuo-Hao Zeng**, Wan-Ting Hsu, Min Sun, "Video Captioning via Sentence Augmentation and Spatio-Temporal Attention". *ACCV 2016*.

Kuo-Hao Zeng, Yen-Chen Lin, Ali Farhadi, Min Sun, "Viralets: Learning from Viral Videos to Identify Semantic Highlight in Personal Videos". *CVPR 2015*.

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.

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