

Kuo-Hao Zeng

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Seeking a PhD Placement by September, 2018 - 24 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%
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, 3.9/4.0 (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 **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 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 Answering 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 Answering 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 Undergraduate Outstanding Project, NSYSU.**

2010 – 2014 **Presidential Awards (amount to 5 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.

Developing 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>.

Core Course and Grades

ML **Introduction to Optimization, NSYSU,** Kaohsiung, Taiwan.

96/100

Introduction to Neural Networks, NSYSU, Kaohsiung, Taiwan.

99/100

Machine Learning Theory, NTHU, Hsinchu, Taiwan.

A+/A+

Advanced Machine Learning Theory, NCTU, Hsinchu, Taiwan.

A+/A+

Neural Network, NTHU, Hsinchu, Taiwan.

A+/A+

CV **Computer Vision for Visual Effects**, *NTHU*, Hsinchu, Taiwan.

A+/A+

PP **Parallel Programming**, *NTHU*, Hsinchu, Taiwan.

A+/A+

Programming Skills

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

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

Simulation Matlabe, HSPICE

Other L^AT_EX

Interests

- Computer Vision + Machine Learning
- Computer Vision + Natural Language
- Computer Vision + Robotics
- Artificial Intelligence
- AI-Complete
- Robotics