**Yuwei (Victoria) Qiu**

Tsinghua University, P.R. China

+86 13621136026 | Email: [qyw14@mails.tsinghua.edu.cn](mailto:qyw14@mails.tsinghua.edu.cn)

**Education**

**Tsinghua University** Beijing, China

Department of Electronic Engineering Sept. 2014 – Jul. 2018 (Expected)

* Senior undergraduate, GPA: 88/100

**University of Pennsyvania** Philadelphia, PA

GRASP Laboratry, Department of Computer and Information Science Summer 2017

* Undergraduate Visiting Research Assitant in Prof. Jianbo Shi’s Group

**\*Featured Courses**

* Robotics: Perception(Coursera), Digital Image Processing(A+), Computer Graphics(A+), Media and Recognition(A)
* Advanced Matlab Programming(A+), C/C++ Computer Program Design(A), Data structure and Algorithm Design(A)

**Publications**

1. **Yuwei Qiu**, Huimin Ma, and Lei Gao.

**“Hardness Prediction for Object Detection inspired by Human Vsion”**

In the *9th International Conference of Image Graphics (ICIG 2017).* **Accepted as oral presentation** (~18%).

1. Lei Gao, Huimin Ma, Chenhao Liu, and **Yuwei Qiu.**

**“A Human Visual Bionic Framework for Object Recognition”**

To appear in *Journal of Graphics, China.*

**Research Experience**

**University of Pennsyvania** Philadelphia, PA

***G****eneral* ***R****obotics,* ***A****utomation,* ***S****ensing &* ***P****erception (****GRASP****) Laboratory*

Research Assistant to ***Prof. Jianbo Shi***

**(a) Self-Body Pose Prediction Based On First Person Videos** 07. 2017 – Present

* To design pose and gestures self-recognition algorithms for intelligent robots ==Motivation
* 3-dimensionally reconstructed context from highly jittery, blurry and narrow ego-centric videos with Multi-View Stereo =Techniques/Difficulties
* Estimated and predicted self-body pose with LSTM =Techniques/Difficulties
* Completed 3-dimensional context reconstruction =Achievements/Conclusions

**Tsinghua University** Beijing, China

*3D Image Simulation Laboratory*

Research Assistant to ***Prof. Huimin Ma*** (Deputy Secretary-General of China Graphics Society)

**(b) Hardness Prediction for Object Detection inspired by Human Vision** 08. 2016 – 2017.01

* Introduced human factor into the task of object detection to predict the detection hardness =Motivation
* Defined novel eye tracking features and eye tracking complexity to quantify complicated human visual process =Techniques/Difficulties
* Computed eye tracking complexity directly with an CNN in spite of laborious eye tracking experiments =Techniques/Difficulties
* Predicted object detection failures in ILSVRC with a precision of 0.94 =Conclusions
* Contributed to a first-authored paper, which has been accepted as oral presentation in *ICIG 2017*.

**(c) On-going: Characterizing Psychological Problems via Interactive Devices** 03. 2017 – Present

* To recognize pattern of mental diseases from =Motivation
* Current Stage
* Expectation

**Tsinghua University** Beijing, China

*Intellectual Graphs and Texts Processing Laboratory*

Research Assistant to ***Prof. Shengjin Wang***

**(d) Chinese Text Recognition in Natural Context Based on CNN** 12. 2016 – 2017.06

* Motivation
* Techniques/Difficulties
* Proposed solution was purchased by China Mobile.

**Stanford University** Palo Alto, CA

*Department of Electrical Engineering*

Participants in a remote project of ***Prof. Tsachy Weissman***

**(e) Magnetic Resonance Imaging (MRI) Registration** 12. 2016 – 2017.06

* Goal
* Techniques
* Techniques
* Complete a technique report and demo. Ranked **4th out of 146** participants.

**Project Experience**

**Facial Expression Recognition** Spring 2017

*Course project in “Media and Recognition”*

* Goal
* Techniques.
* Selected to give a presentation and ranked the 1st out of 10 teams.

**3-D vector text construction and texture mapping** Spring 2016

*Course project in “Computer Graphics”*

* Goal
* Used high-dimensional Bézier curves or B-splines to fit text in natural scenes.
* Ranked the 1st out of 40 students.

**Image Searching** Summer 2015

*Supervised by* ***Prof. Yongdong Zhang*** *(Chinese Academy of Science, Institue of Computing Technology)*

* Used a technique called local-sensitive hashing.
* Tested the demo on PASCAL VOC and attained an accuracy of 90%

**Skills**

**Computer Skills**

* **Proficient (>2years):** C/C++, Matlab
* **Familiar (~1year):** Python, C#, Latex, Git, Verilog, MIPS Assembly Language, HTML, UNIX
* **Deep Learning Tools:** Caffe, Tensorflow, Pytorch

**English Proficiency**

* **TOEFL:** 108 = **26(Speaking)** + 28(Reading) + 27(Writing) + 27(Listening)
* **GRE:** 321 = **154(Verbal)** + 167(Quantitive) + 3.5(Writing)

**Awards and Honors**

* **Three times** Tsinghua Annual Undergraduate Scholarship 2015,2016,2017
* Outstanding Research Assistant (Stanford EE, remote project) 2015

**Extracurriculum Activities**

**Development for Live Broadcasting of 2017 Anniversary Celebration**

*Team Leader*

* Built up a website for live broadcasting with millions of audience, which none of previous staff have ever achieved
* Successfully live broadcasting for ***5 hours with over 5000 clicks***

**EE Student Union @Tsinghua, EE**

*Chairman in charge of External Communication*

* Within one year, raised nearly USD 20,000 for financial sporsorship.

**Gloabal Leadership Competition 2015**

*Team Captain*

* Outstanding Team Captain Award
* Won the business design competition (the 1st place), held at Intel, Silicon Valley