YUAN YAO

http://yuanyao.info

No. 800, Dongchuan Rd., Minhang District◇ Shanghai, China

(+86) · 137 · 0166 · 1024 ◇ rozentill@gmail.com

EDUCATION

Shanghai Jiao Tong University   *Sept 2013 - June 2018 (expected)*
B.Eng. in Computer Science & Technology
GPA: 3.65/4.0, Rank: top 10%

University of California, Los Angeles   *Aug 2015 - Sept 2015*
International Student in Summer Session C
GPA: 4.0/4.0

RESEARCH INTERESTS

Computer Graphics, **Computer Vision** and **Human-computer Interaction**.
I began to love CG when I was a young boy who liked video games and animation. I also eager to change the world and AI is one of the most powerful tools. I hope I can conduct research on Computer Graphics combined with Artificial Intelligence to make the world better.

PUBLICATION

[1] Jing Liao, **Yuan Yao**, Lu Yuan, Gang Hua and Sing Bing Kang. Visual Attribute Transfer through Deep Image Analogy. *ACM Transaction on Graphics (SIGGRAPH 2017)*.

[2] **Yuan Yao**, Po-tsung Chiu and Wai-tat Fu. A Gestural Interface for Practicing Children's Spatial Skills. *Proceedings of the 22nd International Conference on Intelligent User Interfaces Companion (IUI 2017, Poster)*.

RESEARCH EXPERIENCE

University of British Columbia   Sept 2017 - Present
*Visiting Student at Imager Lab, advised by **Alla Sheffer** and **Leonid Sigal***   *Vancouver, Canada*

· During this time, I mainly focus on **Sketch-based Modeling** using **Deep Learning** algorithm.

- Designed a generative adversarial network for image-to-image translation and tuned it.

- Designed and implemented symmetry detection of partial geometry algorithm.

- Designed and implemented 3D shape reconstruction codes.

Microsoft Research Asia   Oct 2016 - Aug 2017
*Research Intern at Visual Computing Group, advised by **Jing Liao** and **Lu Yuan***   *Beijing, China*

· **Deep Image Analogy** is a non-parametric method for style transfer which mainly focuses on the visual attributes in the images.

- Improved the quality on face images using face parsing and landmark detection.

- Designed algorithms to save time in deep patchmatch using hash function and quantization.

- Designed algorithms to improve the quality using superpixel and edge-aware filter.

- Designed an algorithm to morph a image to its stylized one.

- Designed and implemented parallel codes algorithm using CUDA and Caffe.

University of Illinois, Urbana-Champaign Jun 2016 - Sept 2016

*Research Assistant Intern at Cascade Lab, advised by **Wai-tat Fu*** *Illinois, USA*

· I researched on designing a **Gestural Interface** to practice children's **Spatial Reasoning** skills.

- Designed a series of gestures as the input of the game and control the six degree of freedom.
- Designed the algorithms to recognize the gestures using two hands including fusion and view change.
- Designed a user study to measure children's spatial reasoning skills.
- Implemented the gesture recognition algorithm using Unity in C# and used Leap Motion to collect data.

Shanghai Jiao Tong University Sept 2015 - Apr 2016

Research Assistant at IIOT Lab *Shanghai, China*

· **Acemap** is an academic search system, it aims to create maps representing the relationship in academy to help scholars and students.

- Designed distributed crawler.
- Designed a database structure for the academic search engine.
- Implement the distributed crawler.
- Cleaned and unified the data by ETL tool Kettle.
- Made web pages for the system.

WORK EXPERIENCE

Unity Technologies, China Nov 2015 - Feb 2016

Software Engineering Intern *Shanghai, China*

· Implemented web services using API of PayPal.
· Researched on using regular expression to extract the information from the OFAC list provided by official website, which would be beneficial to design a black list of the transaction service.

HORNORS&AWARDS

· The Finalist in ID@XBOX Game Developing Contest held by Microsoft, 2017
· The Finalist in Beauty of Programming held by Microsoft (top 0.3% in nation), 2016
· The Meritorious Winner in Mathematical Contest in Modeling (top 11% in world), 2016
· The Best Enterprise Prize in Hack Shanghai, 2015
· The Academic Excellent Scholarship (top 15%), 2014
· The First Prize in National Mathematical Olympiad in Senior (rank:33 in Shanghai) , 2012

MISCELLANEOUS

Interests	Hiking, Climbing, Guitar, Board Game
Computer Languages	C&C++, C#, Python, HTML/CSS, JavaScript, PHP
Developing Tools	MATLAB, Unity, Hadoop, Kettle
Other Tools	Photoshop, Premiere, iMoive, Blender
Library/Toolkit	CUDA, Caffe, PyTorch, libigl, OpenGL, Eigen, openMP, OpenCV, D3.js