

Xinran Lu

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Education

Tsinghua University

Beijing, China

B.ENG in Automation

Aug. 2013 - Jul. 2017

- GPA: Overall: 3.70/4.00 Ranking: 23/150, Major: 3.82/4.00 Ranking: 12/150
- Core courses: C++ Program Design and Training 94(8/125), Fundamentals of Computer Information Management 93(4/50), Digital Image Processing 90(10/120), Data structures, Computer Principles and Applications 90(25/122), Computer Networks and Applications 90(8/96), Numerical Analysis and Algorithms 90(10/133), Linear Algebra, Calculus, Complex Analysis, Probability Theory

Research Experience

Institute of HCI and Media Integration of Department of Computer Science |

Beijing, China

Research Assistant, Adviser: Prof. Songhai Zhang

Project: Neural Color Transfer

Aug. 2016 - Present

- Improved color transfer algorithm based on neural style transfer and colorization
- Proposed a new method to solve the problem of unchanged luminance during the transfer

Project: Image and Video Matting in Real-Time

Mar. 2016 - Jun. 2016

- Constructed a system to generate Trimap automatically, combine Sampling and Affinity Matting with Local and Nonlocal Smooth Priors
- Improved the algorithm by using the expanded regions to accelerate computing speed

Image Algorithm Research Intern, Turing Robot | Research assistant, Adviser: Dr.

Beijing, China

Yuhao Lu

Project: Pose Imitation of Robot in ROS System

Jul. 2016 - Sep. 2016

- Developed a pose estimation system with binocular camera in ROS platform and make robot to perform simulations of human movement in real-time
- Proposed an algorithm to locate people, match ICP, extract skeleton and compute similarity
- Implemented a 3D body model composed of 10 main body parts to improve results

33th Challenge Cup

Beijing, China

Project: An Augmented Reality Technology based on Hand Recognition

Feb. 2015 - Mai. 2015

- Independently constructed an AR system with projector, camera and computer. Projector cast augmented reality information manipulated by computer, camera collected input image, and computer completed image preprocessing, hand recognition and feedback generation
- Implemented state-of-the-art algorithms to capture video, adjust image, recognize hand and optimize accuracy

Technical Strengths

- Languages: English (fluent), Mandarin (native), German (fluent, Goethe-Certificate C1)
- Programming language: Assembly Language, C/C++, Python, C#, MATLAB, Lua, GIT

Honors & Awards

2016 **20/150**, Undergraduate Academic Excellence Award in Automation

Tsinghua, China

2015 **10/150**, been selected into ATOM project of Department of Automation

Tsinghua, China

2015 **3/400**, EMC Special Award in the 33th Challenge Cup

Tsinghua, China

2015 **5/400**, HuaWei Special Award in the 33th Challenge Cup

Tsinghua, China

2015 **46/400**, Third price in the 33th Challenge Cup

Tsinghua, China

Extracurricular Activity

2015 **Director**, Student Press Corps of THU

Tsinghua, China

2015 **Director**, Student Association for Science and Technology of Department of Automation

Tsinghua, China

2014 **Member**, Public Affairs Sector of Student Union of THU

Tsinghua, China