

# Huikai Wu

PHD STUDENT

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## Education

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### CASIA (Institute of Automation, Chinese Academy of Sciences)

Beijing, China

PHD IN COMPUTER VISION AND DEEP LEARNING

Sep. 2015 - Present

- GPA: 3.67/4

### NJU (Nanjing University)

Nanjing, China

B.S. IN SOFTWARE ENGINEERING

Sep. 2011 - Jun. 2015

- GPA: 3.87/4 Rank: 5/257

## Research

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### Fast End-to-End Trainable Guided Filter

Nov. 2017

PROJECT WEBSITE (TO BE APPEARED IN CVPR 2018)

A universal CNN module for constructing faster, lighter and better dense prediction networks.

### A2-RL: Aesthetics Aware Reinforcement Learning for Image Cropping

Sep. 2017

PROJECT WEBSITE (TO BE APPEARED IN CVPR 2018)

An algorithm for image auto-cropping with deep reinforcement learning.

### GP-GAN: Towards Realistic High-Resolution Image Blending

Mar. 2017

PROJECT WEBSITE

An algorithm for image blending with GANs.

### CNN-CUT: A Weakly Supervised Way for Image Segmentation

Jun. 2016

COURSE PROJECT

An algorithm for saliency object segmentation by combining a pretrained network on ImageNet and Grab Cut.

### Deep Active Learning

May. 2015

B.S. THESIS PAPER

Train a CNN with comparable accuracy using less than 10% examples selected by active learning.

## Project

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### Face Swap

Jan. 2018

PROJECT WEBSITE

Swap face between two photos with Python 3, OpenCV and dlib.

### MSC: A Dataset for Macro-Management in StarCraft II

Sep. 2017

PROJECT WEBSITE

A dataset for macro-management in StarCraft II based on PySC2.

### Chainer implementation of Pix2Pix

Mar. 2017

PROJECT WEBSITE

Chainer implementation of *Image-to-Image Translation Using Conditional Adversarial Networks*

### Chainer version of neural-style and fast-neural-style

Mar. 2017

PROJECT WEBSITE

Chainer implementation of *A Neural Algorithm of Artistic Style* and *Perceptual Losses for Real-Time Style Transfer and Super-Resolution*

### Chainer implementation of realismCNN

Mar. 2017

PROJECT WEBSITE

Chainer implementation of realismCNN proposed in *Learning a Discriminative Model for the Perception of Realism in Composite Images*

### RoboWaiter: A Robot for guest registering

Jan. 2014

RIGHT ID: 201410500366.5

A robot for guest registering by face recognition and speech recognition.

## Fast image inpainting application on Android

Jan. 2014

PUBLISHED

An Android application for image inpainting and object removal with 2x speed-up.

## Honors & Awards

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### INTERNATIONAL

2017 **4th Place**, StarCraft Competition in AIIDE 2017, beat Facebook's team.

### DOMESTIC

2016 **1st Place**, CCF Big Data Competition: Movie Box Prediction.

## Work Experience

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### Palmwin Information Technology

Nanjing, China

RESEARCHER

Aug. 2015 - Oct. 2015

- Website: <http://www.chatgame.me/en/>
- Write a survey about SLAM and AR.

### NLPR (National Laboratory of Pattern Recognition)

Beijing, China

RESEARCHER

Dec. 2014 - Apr. 2015

- Website: <http://www.nlpr.ia.ac.cn/nlpren/EN/volumn/home.shtml>
- Design and implement a car recognition system with 95% accuracy.