

# ARTHUR(HAONAN) QIU

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## OBJECTIVE

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I'm Haonan Qiu, an undergraduate majoring in computer science at The Chinese University of Hong Kong, Shenzhen. I'm interested in Computer Vision and Deep Learning, particularly deep generative models (like GAN) on Image Synthesis, Super-Resolution, Style Transfer and other related applications.

To concentrate on research, I gap one year now and will go back to school next year (after summer). **I'm eager to pursue a future PhD position(2020 FALL).**

## EDUCATION

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**Bachelor of Engineering in Computer Science** Aug 2015 - May 2020  
The Chinese University of Hong Kong, Shenzhen, CGPA: 3.63/4.00, MGPA: 3.97/4.00

**Summer Transfer** Jun 2017 - Aug 2017  
University of California, Berkeley, CGPA: 4.00/4.00

## SKILLS

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<b>Programming languages</b>	Python, C++, R, Java, Matlab
<b>Deep Learning Tools</b>	Pytorch, OpenCV

## PUBLICATIONS

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**Haonan Qiu**, Xiaoguang Han, Chuan Wang, Hang Zhu, Xiangyu Zhu, Jinjin Gu. **Two-phase Hair Image Synthesis by A Self-Enhancing Generative Model**, submitted to IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

Yingxin Wei, **Haonan Qiu**, Yuanhao Liu, Jingxin Du and Man-On Pun. **Unmanned Aerial Vehicle (UAV)-Assisted Unmanned Ground Vehicle (UGV) Systems Design, Implementation and Optimization**, accepted by IEEE International Conference on Computer and Communications (ICCC), 2017.

## RESEARCH EXPERIENCE

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Research Intern, Super-Resolution Group at SenseTime	Sep 2018 - Present
Research Assistant, Shenzhen Research Institute of Big Data	Jan 2017 - Sep 2018

## PROJECTS

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<b>Adversarial Loop for Super-Resolution in Real Scenes</b> <i>Researcher</i>	Sep 2018 - Present
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- Reproduced some influential super-resolution algorithms and integrated them in to a unified framework.
- Explore how to make full use of GAN to solve the challenge from super-resolution in real scenes.

<b>Sketch to Hair Project Based on Deep Generative Models</b> <i>Project Leader</i>	Jan 2018 - Sep 2018
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- Paper retrieval (hundreds of papers) and presentation (main topics are GAN and related applications).
- Created a high quality dataset for hair synthesis. Tested almost all state of the art generative models.
- Created a self-enhancing generative model for Sketch2Hair, whose performance is far more than all other methods.

<b>Selfie Style Transfer Software Development</b> <i>Algorithm Engineer</i>	Feb 2018 - May 2018
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- Surveyed existing style transfer approaches and tested some of them.
- Transferred human face into cartoon or animal style by Neural Style and Cycle-GAN.

### **Unmanned Aerial Vehicle -Assisted Unmanned Ground Vehicle Systems**

Jun 2017 - Dec 2017

*Algorithm Engineer*

- Designed an algorithm for automatic path planning, which took into account potential target points.
- Optimized route for the unmanned ground vehicle. Corrected the route with Kalman Filter.
- One paper accepted by ICCV (responsible for the algorithm part).

### **CUHK(SZ) Wechat Campus Card Development**

Jun 2017 - Oct 2017

*Front-End Engineer*

- Learned the Wechat mini program language and developed CUHKSZ mini program in two months.
- More than two-thirds of students were our users and won the Digital Star Award by Tencent.

### **Form Reader and Handwriting Characters Recognition Software**

Jan 2017 - May 2017

*Software Engineer*

- Designed a form reader software which could use phone to replace scanner for Admissions Office.
- Developed some effective functions for data processing on forms automatically.
- Tried to add OCR functions but failed due to the complexity of handwritten Chinese characters.

## **HONORS AND ACTIVITIES**

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Member of Dean's List	2016, 2017, 2018
Undergraduate Research Award	2016, 2017, 2018
Undergraduate Student Teaching Fellow (Teaching Assistant, 3 semesters for Python & C++ lab)	2016, 2017
Academic Performance (AP) Scholarship	2018
Tencent WeChat Campus Card "Digital Star"	2017