# Weihao YU (余伟浩)

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## **Education**

Master of Engineering in Software Engineering, Sept 2017 – June 2019 (expected)

Advisor: Prof. Liang Lin **GPA: 3.80 / 5** (88.0 / 100)

Sun Yat-sen University (national key university of Project 985 and Project 211 in China)

Bachelor of Science in Opto-Electronic Information Science and Engineering, Sept 2013 – June 2017

(Optics and Physics are national key disciplines.)

Advisors: Prof. Dongmei Deng and Assoc. Prof. Yafei Yu

**GPA: 4.08 / 5** (90.8 / 100), **Ranking: 1 / 82** (in major class), **1 / 189** (in similar major classes)

South China Normal University (national key university of Project 211 in China)

#### **Awards**

- [1] National Scholarship (top 0.5%), Ministry of Education, 2015
- [2] National Encouragement Scholarship, Ministry of Education, 2014, 2016
- [3] First Prize Scholarship (top 2%), South China Normal University, 2013-2017 (Received for 4 consecutive years)
- [4] Scholarship of China Telecom, All-China Students' Federation & China Telecom, 2016 (1 among 25000, I was the only student wining the scholarship at our university in that year)
- [5] The Special Prize Innovation Award, South China Normal University, 2017
- [6] Star of Optoelectronics, School of Information and Optoelectronic Science and Engineering, South China Normal University, 2016

#### **Publications**

**Google Scholar**: <a href="https://scholar.google.com/citations?user=LYxjt1QAAAAJ">https://scholar.google.com/citations?user=LYxjt1QAAAAJ</a>

#### **Conference Papers**

Currently my interests are computer vision and machine learning.

- [1] Tianshui Chen\*, **Weihao Yu**\*, Riquan Chen, and Liang Lin, "Knowledge-Embedded Routing Network for Scene Graph Generation", Proc. of IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2019. (\*equal contribution. Since I am writing my master's thesis, the code and models will be released in about two or three months.)
- [2] Zhouxia Wang, Tianshui Chen, Jimmy Ren, **Weihao Yu**, Hui Cheng, and Liang Lin, "Deep Reasoning with Knowledge Graph for Social Relationship Understanding", Proc. of International Joint Conference on Artificial Intelligence (IJCAI), 2018.<sup>1</sup>

## Journal Papers

There are **5 SCI Journal papers** of Optics and Physics, **all IF>1.3**. When I was an undergraduate student, my research interests were **Optics and Physics**. I was a reviewer of Appl. Optics (IF=1.791).

[1] **Weihao Yu**, Ruihuang Zhao, Fu Deng, Jiayao Huang, Chidao Chen, Xiangbo Yang, Yanping Zhao, and Dongmei Deng, "Propagation of Airy Gaussian vortex beams in uniaxial crystals", Chin. Phys. B, 2016. <sup>2</sup> (IF=1.321)

<sup>&</sup>lt;sup>1</sup> IJCAI 2018 <a href="https://www.ijcai.org/proceedings/2018/142">https://www.ijcai.org/proceedings/2018/142</a>

<sup>&</sup>lt;sup>2</sup> Chin. Phys. B <a href="http://iopscience.iop.org/article/10.1088/1674-1056/25/4/044201/meta">http://iopscience.iop.org/article/10.1088/1674-1056/25/4/044201/meta</a>

- [2] Fu Deng, **Weihao Yu**, and Dongmei Deng, "Controllably accelerating and decelerating Airy–Bessel–Gaussian wave packets", Laser Phys. Lett., 2016. <sup>3</sup> (IF=2.240)
- [3] Fu Deng, **Weihao Yu**, Jiayao Huang, Ruihuang Zhao, Jiong Lin, and Dongmei Deng, "Propagation of Airy-Gaussian beams in a chiral medium", Eur. Phys. J. D, 2016. <sup>4</sup> (IF=1.393)
- [4] Ruihuang Zhao, Fu Deng, **Weihao Yu**, Jiayao Huang, and Dongmei Deng, "Propagation properties of Airy–Gaussian vortex beams through the gradient-index medium", J. Opt. Soc. Am. A, 2016. <sup>5</sup> (IF=1.556)
- [5] Jiayao Huang, Zijie Liang, Fu Deng, **Weihao Yu**, Ruihuang Zhao, Bo Chen, Xiangbo Yang, and Dongmei Deng, "Propagation properties of right-hand circularly polarized Airy–Gaussian beams through slabs of right-handed materials and left-handed materials", J. Opt. Soc. Am. A, 2016. <sup>6</sup> (IF=1.556)

#### **Patents**

- [1] **Weihao Yu**, Jiayao Huang, Ruihuang Zhao, Weijiang Yu, Yuanghao Huang, Zhihang Wu, Zhiqiang Liao, and Fu Deng, "Photoelectricity Touch Devices", CN204731762U
- [2] Liang Lin and **Weihao Yu**, and Tianshui Chen, "Image scene graph generation method and device". (Application No. 201811149481.7)
- [3] Weijiang Yu and Weihao Yu, "High gain bandwidth product electronic amplifier device", CN205566232U.
- [4] Jiayao Huang, Fu Deng, **Weihao Yu**, Ruihuang Zhao, Bo Ke, Zhiqiang Liao, and Dongmei Deng, "Method and device for generating second order Hermitian complex function Gaussian beam", CN105467608A.
- [5] Jiayao Huang, Fu Deng, **Weihao Yu**, Ruihuang Zhao, Bo Ke, Zhiqiang Liao, and Dongmei Deng, "Device for generating a second-order Hermitian complex function Gaussian beam", CN205281028U.
- [6] Weijiang Yu, Xin Huang, and **Weihao Yu**, "Control device for automatic page turning and electronic reader device", CN205721730U.
- [7] Fu Deng, Ruihuang Zhao, Jiayao Huang, **Weihao Yu**, and Dongmei Deng, "Device for manipulating the direction of propagation of a circle of Airy", CN205405030U.
- [8] Ruihaung Zhao, Fu Deng, Jiayao Huang, and **Weihao Yu**, "Device for generating Airy Gaussian vortex beam", CN205620619U.
- [9] Weixuan Wang, Yuanfeng He, Zhun Zhang, Chengzhang Zheng, and **Weiaho Yu**, "Quasi-ultrasonic controlled multi-mode intelligent LED light", CN205213079U.
- [10] Liang Lin, Tianshui Chen, Zhouxia Wang, Guanbin Li, **Weihao Yu**, and Lin Xu. "Multi-label image recognition method and device", CN108133233A.
- [11] Liang Lin, Tianshui Chen, Hui Cheng, Xiaonan Luo, Lin Xu, and **Weihao Yu**, "Method and device for accelerating deep neural network", CN108053027A.

#### **Contests**

- [1] Honorable Mention, Interdisciplinary Contest in Modeling, Consortium for Mathematics and Its Applications, 2015, 2016
- [2] Second Price of Guangdong Prince, National Mathematical Contest in Modeling, China Society for Industrial and Applied Mathematics, 2015

# **Programming Skills**

Python, PyTorch, TensorFlow, Latex, Matlab

### **Hobbies**

History, long-distance running and Chinese calligraph

<sup>&</sup>lt;sup>3</sup> Laser Phys. Lett. <u>http://iopscience.iop.org/article/10.1088/1612-2011/13/11/116202/meta</u>

<sup>&</sup>lt;sup>4</sup> Eur. Phys. J. D http://link.springer.com/article/10.1140%2Fepjd%2Fe2016-60677-8

<sup>&</sup>lt;sup>5</sup> J. Opt. Soc. Am. A <a href="https://www.osapublishing.org/josaa/abstract.cfm?uri=josaa-33-6-1025">https://www.osapublishing.org/josaa/abstract.cfm?uri=josaa-33-6-1025</a>

<sup>&</sup>lt;sup>6</sup> J. Opt. Soc. Am. A https://www.osapublishing.org/josaa/abstract.cfm?uri=josaa-32-11-2104