

Yukun Guo

Casey Eye Institute, Oregon Health &
Science University (OHSU)
515 SW Campus Dr, Portland, OR 97239

Email: guoyu@ohsu.edu

Website: <https://yukun-guo.github.io>

Google Scholar Citations:

<https://scholar.google.com/citations?user=BCrQPWUAAAAJ>

EDUCATION

2017	MS	Computer Science and Technology, University of Jinan, Jinan, China
2013	BS	Computer Science and Technology, University of Jinan, Jinan, China

PROFESSIONAL POSITIONS

2019-present	Research assistant, Casey Eye Institute, OHSU, Portland, OR
2017-2018	Visiting scholar, Casey Eye Institute, OHSU, Portland, OR

INTELLECTUAL PROPERTY

-
1. Jia Y, Guo Y. [Identifying retinal layer boundaries](#). *US Patent App.* 16/998,931, 2021
 2. Jia Y, Guo Y. [Detecting avascular areas using neural networks](#). *US Patent App.* 16/858,384, 2020

PEER REVIEWED JOURNAL PAPERS

-
1. Guo Y, Hormel TT, Pi S, Wei X, Gao M, Morrison JC, Jia Y. [An end-to-end network for segmenting the vasculature of three retinal capillary plexuses from OCT angiographic volumes](#). *Biomedical Optics Express*. 2021 July 16; 12:4889-4900.
 2. Guo Y, Hormel TT, Gao L, You QS, Wang B, Flaxel CJ, Bailey ST, Choi D, Huang D, Hwang TS, Jia Y. [Quantification of nonperfusion area in montaged wide-field optical coherence tomography angiography using deep learning in diabetic retinopathy](#). *Ophthalmology Science*. 2021 May 12:100027.
 3. You QS, Tsuboi K, Guo Y, Wang J, Flaxel CJ, Bailey ST, Huang D, Jia Y, Hwang TS. [Comparison of Central Macular Fluid Volume with Central Subfield Thickness in Patients with Diabetic Macular Edema Using Optical Coherence Tomography Angiography](#). *JAMA ophthalmology*. 2021 May 13.
 4. Gao L, Wang J, You QS, Guo Y, Flaxel CJ, Hwang TS, Huang D, Jia Y, Bailey ST. [Plexus-specific retinal capillary avascular area in exudative age-related macular degeneration with projection-resolved OCT angiography](#). *British Journal of Ophthalmology*. 2020 Dec 21.
 5. You QS, Wang J, Guo Y, Pi S, Flaxel CJ, Bailey ST, Huang D, Jia Y, Hwang TS. [Optical coherence tomography angiography avascular area association with 1-year treatment requirement and disease progression in diabetic retinopathy](#). *American journal of ophthalmology*. 2020 Sep 1; 217:268-77.
 6. Gao M, Guo Y, Hormel TT, Sun J, Hwang TS, Jia Y. [Reconstruction of high-resolution 6x6-mm OCT angiograms using deep learning](#). *Biomedical Optics Express*. 2020 Jul 1; 11(7):3585-600.

7. You QS, **Guo Y**, Wang J, Wei X, Camino A, Zang P, Flaxel CJ, Bailey ST, Huang D, Jia Y, Hwang TS. [Detection of clinically unsuspected retinal neovascularization with wide-field optical coherence tomography angiography](#). *Retina*. 2020 May 1;40(5):891-7.
8. Camino A, Ng R, Huang J, **Guo Y**, Ni S, Jia Y, Huang D, Jian Y [Depth-resolved optimization of a real-time sensorless adaptive optics optical coherence tomography](#). *Optics letters*. 2020 May 1;45(9):2612-5.
9. Wang J, Hormel TT, Gao L, Zang P, **Guo Y**, Wang X, Bailey ST, Jia Y. [Automated Diagnosis and Segmentation of Choroidal Neovascularization in OCT Angiography using Deep Learning](#). *Biomedical Optics Express*. 2020 Feb 1;11(2):927-44.
10. You QS, Wang J, **Guo Y**, Flaxel CJ, Hwang TS, Huang D, Jia Y, Bailey ST. [Detection of reduced retinal vessel density in eyes with geographic atrophy secondary to age-related macular degeneration using projection-resolved optical coherence tomography angiography](#). *American Journal of Ophthalmology*. 2020 Jan 1; 209:206-12.
11. Wang J, Hormel TT, You QS, **Guo Y**, Wang X, Chen L, Hwang TS, Jia Y. [Robust non-perfusion area detection in three retinal plexuses using convolutional neural network in OCT angiography](#). *Biomedical Optics Express*. 2020 Jan 1;11(1):330-45.
12. **Guo Y**, Hormel TT, Xiong H, Wang J, Hwang TS, Jia Y. [Automated segmentation of retinal fluid volumes from structural and angiographic optical coherence tomography using deep learning](#). *Translational vision science & technology*. 2020 Jan 28;9(2):54-.
13. Wei X, Hormel TT, **Guo Y**, Jia Y. [75-degree non-mydratic single-volume optical coherence tomographic angiography](#). *Biomedical Optics Express*. 2019 Dec 1;10(12):6286-95.
14. Camino A, **Guo Y**, You QS, Wang J, Huang D, Bailey ST, Jia Y. [Detecting and measuring areas of choriocapillaris low perfusion in intermediate, non-neovascular age-related macular degeneration](#). *Neurophotonics*. 2019 Sep;6(4):041108.
15. **Guo Y**, Hormel TT, Xiong H, Wang B, Camino A, Wang J, Huang D, Hwang TS, Jia Y. [Development and validation of a deep learning algorithm for distinguishing nonperfusion area from signal reduction artifacts on OCT angiography](#). *Biomedical Optics Express*. 2019 Jul 1;10(7):3257-68.
16. Wei X, Hormel TT, Pi S, **Guo Y**, Jian Y, Jia Y. [High dynamic range optical coherence tomography angiography \(HDR-OCTA\)](#). *Biomedical Optics Express*. 2019 Jul 1;10(7):3560-71.
17. Wang B, Camino A, Pi S, **Guo Y**, Wang J, Huang D, Hwang TS, Jia Y. [Three-dimensional structural and angiographic evaluation of foveal ischemia in diabetic retinopathy: method and validation](#). *Biomedical Optics Express*. 2019 Jul 1;10(7):3522-32.
18. Pi S, **Guo Y**, Huang D, Morrison JC, Jia Y. [Monitoring retinal responses to acute intraocular pressure elevation in rats with visible light optical coherence tomography](#). *Neurophotonics*. 2019 Jul;6(4):041104.
19. **Guo Y**, Camino A, Wang J, Huang D, Hwang TS, Jia Y. [MEDnet, a neural network for automated detection of avascular area in OCT angiography](#). *Biomedical Optics Express*. 2018 Nov 1;9(11):5147-58.
20. **Guo Y**, Camino A, Zhang M, Wang J, Huang D, Hwang T, Jia Y. [Automated segmentation of retinal layer boundaries and capillary plexuses in wide-field optical coherence tomographic angiography](#). *Biomedical Optics Express*. 2018 Sep 1;9(9):4429-42.
21. Li J, **Guo Y**, Ma L. [MCSHM: A simple and practical method for moving objects detection in dynamic scenes](#). In *2017 Chinese Automation Congress (CAC)*. 2017 Oct 20 (pp. 5112-5118). IEEE.
22. Yu X, **Guo Y**, Li J, Cai F. [An image patch matching method based on multi-feature fusion](#). In *2017 10th International Congress on Image and Signal Processing/ BioMedical Engineering and Informatics (CISP-BMEI)*. 2017 Oct 14 (pp. 1-6). IEEE.

23. **Guo Y**, Yu X, Li J. [A classification method of epithelial cells and clue cells based on multi-scale texture analysis](#). In *2016 9th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI)*. 2016 Oct 15 (pp. 432-436). IEEE.