

Brandon Yushan Feng

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Education

- 2019–2023 **Ph.D. in Computer Science**, *University of Maryland*.
2018–2019 **M.S. in Statistics**, *University of Virginia*.
2015–2018 **B.A. in Computer Science and Statistics**, *University of Virginia*.

Research Interests

I develop innovative machine learning algorithms to process image and 3D data, with applications in mixed reality and natural science. I am interested in algorithmic advancements to our ability to perceive and represent information, with an ultimate goal of generating positive societal impact.

Publications

- SIGGRAPH Asia 2022 **VIINTER: View Interpolation With Implicit Neural Representations of Images**.
B. Y. Feng, S. Jabbireddy, A. Varshney.
SIGGRAPH Asia 2022.
- ECCV 2022 **PRIF: Primary Ray-based Implicit Function**.
B. Y. Feng, Y. Zhang, D. Tang, R. Du, A. Varshney.
European Conference on Computer Vision (ECCV) 2022.
- IEEE TVCG **Neural Subspaces for Light Fields**.
B. Y. Feng, A. Varshney.
IEEE Transactions on Visualization and Computer Graphics, 2022.
- ICCV 2021 **SIGNET: Efficient Neural Representation for Light Fields**.
B. Y. Feng, A. Varshney.
International Conference on Computer Vision (ICCV) 2021. (Oral - Top 3%)
- Protein Science **Benchmarking AlphaFold for Protein Complex Modeling Reveals Accuracy Determinants**.
R. Yin, B. Y. Feng, A. Varshney, R. G. Pierce.
Protein Science, 31 (8).
- UIST 2021 **GazeChat: Enhancing Virtual Conferences with Gaze-aware 3D Photos**.
Z. He, K. Wang, B. Y. Feng, R. Du, K. Perlin.
ACM Symposium on User Interface Software and Technology (UIST) 2021.
- 3DV 2020 **Deep Depth Estimation on 360° Images with a Double Quaternion Loss**.
B. Y. Feng, W. Yao, Z. Liu, A. Varshney.
International Conference on 3D Vision (3DV) 2020.
- ISBI 2019 **Prostate Segmentation from 3D MRI Using a Two-stage Model and Variable-input Based Uncertainty Measure**.
H. Pan, B. Y. Feng, C. Meyer, X. Feng.
2019 IEEE 16th International Symposium on Biomedical Imaging (ISBI) 2019.

ISBI 2019 **A Self-adaptive Network for Multiple Sclerosis Lesion Segmentation from Multi-contrast MRI with Various Imaging Sequences.**
B. Y. Feng, H. Pan, C. Meyer, X. Feng.
2019 IEEE 16th International Symposium on Biomedical Imaging (ISBI) 2019.

Talks

2022/10/21 **Rice University** Computational Imaging Lab.
Implicit Neural Representations for Graphics and Vision.
Host: Dr. Ashok Veeraraghavan and Weiyun Jiang

2022/09/23 **University of Maryland** Vision and Learning Lab.
Implicit Neural Representations for Graphics and Vision.
Host: Dr. Jia-Bin Huang

2022/08/30 **University of Texas at Austin** Visual Informatics Group.
Efficient Implicit Neural Representation for 3D Shapes.
Host: Dr. Atlas Wang and Zhiwen Fan

2022/07/15 **Optica Imaging Congress COSI.**
Adversarial Sensing for Sub-Diffraction Imaging.

2022/06/07 **Google** AR.
Primary Ray-based Implicit Function.
Host: Dr. Yinda Zhang

Service

Journal IEEE Transactions on Pattern Analysis and Machine Intelligence
Reviewer IEEE Transactions on Image Processing
IEEE Transactions on Circuits and Systems for Video Technology

Conference IEEE Conference on Computer Vision and Pattern Recognition (CVPR) - 2022
Reviewer Neural Information Processing Systems (NeurIPS) - 2022
International Conference on Machine Learning (ICML) - 2022

University Organizer, University of Maryland Computer Vision Seminar - 2022
Service Organizer, Computational Imaging Workshop at Technica (largest hackathon for underrepresented genders) - 2022
Reviewer, University of Maryland Computer Science Graduate Program Application - 2020, 2021, 2022

Work Experience

2022- **Research Scientist Intern**, *Google*, San Francisco, CA.

2019-2022 **Graduate Research Assistant**, *University of Maryland*, College Park, MD.

2018-2019 **Research Intern**, *Springbok*, Charlottesville, VA.