

Brevin Tilmon

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Education

University of Florida

2019 - Present

Ph.D. Electrical and Computer Engineering

Advised by Dr. Sanjeev Koppal

Murray State University

2015 - 2019

B.S. Engineering Physics

GPA: 3.8/4.0

Courses: Linear Algebra, Calculus II and III, Differential Equations, Geometric and Wave Optics, Advanced Electromagnetism, Quantum Mechanics, Machine Learning, Digital Signal Processing, Digital Circuits and Systems, Circuit Theory, Control Systems, Robot Dynamics

Experience

Meta

2021 - Present

Research Intern, [Reality Labs](#), Advised by Dr. Shuochen Su and Dr. Michael Hall

- Developed an efficient machine learning depth estimation algorithm for AR/VR. Scaled the algorithm into production machine learning infrastructure.

NASA

2021

Research Intern, [Intelligent Robotics Group](#), Advised by Dr. Uland Wong

- Developed a simulator and neural rendering algorithms for a computational imaging sensor to better understand the geometry and reflectance of planetary surfaces. [\[link\]](#)

University of Florida

2019 - Present

Graduate Research Assistant, [FOCUS Lab](#), Advised by Dr. Sanjeev Koppal

- Research in computer vision, computational photography and machine learning. Developed novel algorithms and computational imaging hardware.

Publications

- [SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing](#)
B. Tilmon and S. J. Koppal
International Conference on Computer Vision (ICCV), 2021
- [Fast Foveating Cameras for Dense Adaptive Resolution](#)
B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal
Transactions on Pattern Analysis and Machine Intelligence (PAMI), 2021
- [FoveaCam: A MEMS Mirror-Enabled Foveating Camera](#)
B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal.
International Conference on Computational Photography (ICCP), 2020
- [Towards a MEMS-based Adaptive LIDAR](#)
F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti and S. J. Koppal.
International Conference on 3D Vision (3DV), 2020
- [Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition](#)
K. Henderson, X. Liu, J. Folden, B. Tilmon, S. Jayasuriya and S. J. Koppal.
Transactions on Computational Imaging 2020
- [Novel Approach of Wavelet Analysis for Nonlinear Ultrasonic Measurements and Fatigue Assessment of Jet Engine Components](#)
G. Bunget, B. Tilmon, A. Yee, D. Stewart, J. Rogers, et al.
American Institute of Physics 2018

Skills

Software: Python, C++, PyTorch, CUDA, NVIDIA OptiX, Mitsuba

Hardware: Depth/RGB Cameras, Embedded Systems, Optics Bench