

Brevin Tilmon

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Background

Research and development of new imaging sensors to improve computer vision. Developing computer vision, computer graphics, and machine learning software and novel hardware (optics, electronics) solutions for sensors in embedded environments. Solid software engineering experience with exposure to high performance computing on CPU and GPU.

Education

University of Florida 5/2019 - 5/2023 (expected)
PhD, Electrical and Computer Engineering

Murray State University 8/2015 - 5/2019
BS, Engineering Physics

Experience

Snap Inc. 5/2022 - Present
Research Intern, Computational Imaging Team
Developing novel 3D sensors to improve 3D reconstruction on mobile devices.

Meta 8/2021 - 12/2021
Research Intern, Reality Labs
Developed dynamic occlusion prediction algorithm based on stereo cameras and machine learning.

NASA Ames Research Center 5/2021 - 8/2021
Research Intern, Intelligent Robotics Group
Improved 3D reconstruction capabilities of embedded computational microscope.

University of Florida 5/2019 - Present
Graduate Research Assistant, Florida Optics and Computational Sensor Lab
Research and development of computer vision algorithms and efficient cameras, projectors, and LIDAR sensors.

Selected Publications, Patents, Open Source Software

(Please see my [Google Scholar](#) and [GitHub](#) for more)

B. Tilmon. “*illumiGrad: PyTorch-abstracted online camera calibration for RGBD cameras*”, GitHub 2022

B. Tilmon and S. J. Koppal. “*SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing*”, IEEE/CVF International Conference on Computer Vision (ICCV), 2021.

B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal. “*FoveaCam: A MEMS Mirror Enabled Foveating Cameras*”, IEEE International Conference on Computational Photography (ICCP), 2020

F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti and S. J. Koppal. “*Towards a MEMS-based Adaptive LIDAR*”, International Conference on 3D Vision (3DV), 2020

S. J. Koppal, Z. Tasneem, D. Wang, H. Xie and B. Tilmon. “*Fast Foveation Camera and Controlling Algorithms*”, US16844597, 2020