

# Brevin Tilmon

Homepage: <https://btilmon.github.io>

Email: [brevinjt@gmail.com](mailto:brevinjt@gmail.com)

Phone: 812-568-3344

## Background

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Research and development of new imaging sensors to improve computer vision. Developing computer vision, computer graphics, and machine learning software and hardware (optics, electronics) solutions for sensors in embedded environments. Software engineering experience in C++, Python, CUDA, PyTorch.

## Education

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

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

## Experience

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**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)

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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 Camera*”, 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.