

Brevin Tilmon

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

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Education

University of Florida

5/2019 - 5/2023 (expected)

Ph.D. Electrical and Computer Engineering

Advisor: Sanjeev Koppal

Murray State University

8/2015 - 5/2019

B.S. Engineering Physics

Experience

Snap Inc.

5/2022 - Present

Research Intern, Computational Imaging Team

Supervisors: Sizhuo Ma and Jian Wang

Project: Low power depth sensing on mobile devices

Meta

8/2021 - 12/2021

Research Intern, Reality Labs

Supervisors: Shuochen Su and Michael Hall

Project: Efficient dynamic occlusion with stereo vision

NASA Ames Research Center

5/2021 - 8/2021

Research Intern, Intelligent Robotics Group

Supervisors: Michael Dille and Uland Wong

Project: 3D reconstruction and neural rendering

University of Florida

5/2019 - Present

Graduate Research Assistant, FOCUS Lab

Advisor: Sanjeev Koppal

Projects: Computer Vision, Computational Photography, Deep Learning

Publications

SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing

B. Tilmon and S. J. Koppal

IEEE/CVF International Conference on Computer Vision (ICCV), 2021

Fast Foveating Cameras for Dense Adaptive Resolution

B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal

IEEE 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.

IEEE 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.

IEEE Transactions on Computational Imaging 2020

Open Source Software

illumiGrad: PyTorch-abstracted camera calibration for RGBD cameras [\[link\]](#)

Patents

Efficient Dynamic Occlusion based on Stereo Vision

B. Tilmon, S. Su, M. Hall

under review, 2022

Fast Foveation Camera and Controlling Algorithms

S. J. Koppal, Z. Tasneem, D. Wang, H. Xie, B. Tilmon

US16844597, 2020

Awards

National Science Foundation Graduate Research Fellowship

2021

Honorable Mention

Graduate School Preeminence Award, University of Florida

2019 - 2024

Selective fellowship for competitive PhD applicants.

Jesse & Deborah Jones Endowment Scholarship, Murray State University

2015 - 2019

Merit scholarship covered housing and partial tuition.