Brevin Tilmon

Personal Website / GitHub / Google Scholar / Email / (Cell) 812-568-3344

Education

University of Florida 5/2019 - 12/2023
Ph.D. Electrical and Computer Engineering

Murray State University 8/2015 - 5/2019
B.S. Electrical Engineering, 3.8/4.0

Experience

Snap Inc. 5/2022 - 11/2022
Research Intern, Computational Imaging Team

Meta 8/2021 - 12/2021
Research Intern, Reality Labs

NASA Ames Research Center 5/2021 - 8/2021
Research Intern, Intelligent Robotics Group

University of Florida 5/2019 - Present
Graduate Research Assistant, Florida Optics and Computational Sensor Lab

Publications

(Additional publications and patents available at Google Scholar)

- B. Tilmon, Z. Sun, S. J. Koppal, Y. Wu, G. Evangelidis, R. Zharredine, G. Krishnan, S. Ma, and J. Wang. “Energy-Efficient Adaptive 3D Sensing”. **CVPR**, 2023.
- B. Tilmon and S. J. Koppal. “SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing”. **ICCV**, 2021. Website.
- B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal. “Fast Foveating Cameras for Dense Adaptive Resolution”. **PAMI**, 2021. Website.
- B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal. “FoveaCam: A MEMS Mirror-Enabled Foveating Camera”. **ICCP**, 2020. Website.
- F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti and S. J. Koppal. “Towards a MEMS-based Adaptive LIDAR”. **3DV**, 2020. Website.
- K. Henderson, X. Liu, J. Folden, B. Tilmon, S. Jayasuriya and S. J. Koppal. “Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition”. **Transactions on Computational Imaging**, 2020. Website.

Open Source Software

holoCu [GitHub]
CUDA implementation/simulator of fresnel holography used for my CVPR 2023 paper "Energy-Efficient Adaptive 3D Sensing".

illumiGrad [GitHub]
PyTorch abstracted local bundle adjustment for RGBD cameras.

Skills

Computer Vision, Computational Imaging/Photography, Machine Learning, Python, C++, CUDA, PyTorch