Brevin Tilmon

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Education

PhD, Electrical and Computer Engineering, University of Florida 2019 - Present BSE, Engineering Physics, Murray State University 2015 - 2019 Experience

Facebook, Facebook Reality Labs

Fall 2021

Research Intern with Michael Hall

Working on 3D computer vision for AR/VR.

NASA, Intelligent Robotics Group

Summer 2021

Research Intern with Uland Wong and Michael Dille Working on 3D reconstruction and BRDF recovery.

University of Florida, FOCUS Lab

2019 - Present

Graduate Research Assistant, Advisor: Sanjeev Koppal

Developing computer vision algorithms and computational imaging systems.

Publications

1. SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing B. Tilmon, S. J. Koppal arXiv, 2021

2. Fast Foveating Cameras for Dense Adaptive Resolution

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

Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021

3. FoveaCam: A MEMS Mirror-Enabled Foveating Camera

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

International Conference on Computational Photography (ICCP), 2020

4. Towards a MEMS-based Adaptive LIDAR

F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti, S. J. Koppal.

International Conference on 3D Vision (3DV), 2020

5. Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition

K. Henderson, X. Liu, J. Folden, B. Tilmon, S. Jayasuriya, S.J. Koppal.

Transactions on Computational Imaging (TCI), 2020

6. 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

Awards

NSF GRFP Honorable Mention	2020
Graduate School Preeminence Award, University of Florida	2019
Kirkland Fellowship, University of Florida	2019

Skills

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

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