Brevin Tilmon

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Education

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

Experience

Facebook, Facebook Reality Labs, Research Intern — 2021
Working on 3D computer vision with Michael Hall.

NASA, Intelligent Robotics Group, Research Intern — 2021
Worked on inverse rendering and simulating lunar materials with Uland Wong.

University of Florida, FOCUS Lab, Graduate Research Assistant — 2019 - Present
Researching computer vision and machine learning advised by Sanjeev Koppal.

Publications

1. SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing
   B. Tilmon and S. J. Koppal
   ICCV 2021
2. Fast Foveating Cameras for Dense Adaptive Resolution
   B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal
   TPAMI 2021
3. FoveaCam: A MEMS Mirror-Enabled Foveating Camera
   B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal.
   ICCP 2020
4. Towards a MEMS-based Adaptive LIDAR
   F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti and S. J. Koppal.
   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 and S.J. Koppal.
   Transactions on Computational Imaging 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

Patents

1. Fast Foveation Camera and Controlling Algorithms
   S. Koppal, Z. Tasneem, D. Wang, H. Xie, B. Tilmon

Awards

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

Skills

Software: Python, C++, PyTorch, CUDA, NVIDIA OptiX, Mitsuba
Hardware: Depth/RGB Cameras, Embedded Systems, Optics Bench