Brevin Tilmon

I am a PhD student skilled in computational photography, computer vision, machine/deep learning, and robotics. My research focuses on developing computer vision algorithms and hardware for adaptive vision sensors.

Personal

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Education

Ph.D. Electrical Engineering 2019-Present
University of Florida
Advisor: Dr. Sanjeev Koppal

B.S. Engineering Physics 2015-2019
Murray State University, 3.8/4.0

Publications, Available at https://btilmon.github.io/

1. Brevin Tilmon, Eakta Jain, Silvia Ferrari, Sanjeev Koppal. "FoveaCam: A MEMS Mirror-Enabled Foveating Camera". **International Conference on Computational Photography 2020**.
2. Francesco Pittaluga, Zaid Tasneem, Justin Folden, Brevin Tilmon, Ayan Chakrabarti, Sanjeev Koppal."A MEMS-Based Foveating LIDAR to Enable Real-Time Adaptive Depth Sensing". **arXiv 2020**.
3. Kristofer Henderson, Xiaomeng Liu, Justin Folden, Brevin Tilmon, Suren Jayasuriya, Sanjeev Koppal. "Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition". **Transactions on Computational Imaging 2020**.
4. Gheorge Bunget, Brevin Tilmon, Andrew Yee, Dylan Stewart, James Rogers, et al. "Novel Approach of Wavelet Analysis for Nonlinear Ultrasonic Measurements and Fatigue Assessment of Jet Engine Components". **American Institute of Physics 2018**.

Experience

Graduate Research Assistant 2019-Present
Florida Optics and Computational Sensor Lab, University of Florida
Design computer vision algorithms and hardware for adaptive vision sensors (cameras, depth sensors, projectors).

Undergraduate Research Assistant 2016-2019
NDE Lab, Murray State University and FOCUS Lab, University of Florida

Electrical Engineering Intern 2017
Berry Global Inc.

IEEE Robotics Club President 2017-2019
Murray State University

Awards

NSF GRFP Honorable Mention 2020
Graduate School Preeminence Award, University of Florida
Jesse Jones Endowment, Housing Scholarship, Sigma Pi Sigma, Murray State University

Skills

Software: C++, Python, OpenCV, PyTorch, MATLAB, Solidworks
System Design: Machine vision cameras, depth sensors, MEMS Devices, Microcontrollers