Brevin Tilmon

I am a PhD student skilled in computational photography, computer vision, machine/deep learning, and robotics. My research focuses on developing 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 algorithms and hardware for adaptive vision sensors (cameras, depth sensors, projectors). Develop deep learning approaches for enhancing these sensors capabilities.

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