# Brevin Tilmon

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https://btilmon.github.io

**EDUCATION**

**University of Florida**  May 2019 - Present
PhD, Electrical Engineering

**Murray State University**  Aug 2015 - May 2019
Bachelor of Science in Engineering, Engineering Physics

**EXPERIENCE**

**Research Assistant**  May 2019 - Present
*FOCUS Lab, University of Florida, Advisor: Dr. Sanjeev Koppal*
Develop computational cameras using computer vision and machine learning.

**Research Intern - SURF Program**  Summer 2018
*FOCUS Lab, University of Florida, Advisor: Dr. Sanjeev Koppal*
Developed a projector-camera system for light transport analysis using a high speed camera and MEMS mirror sensor for structured light.

**Undergraduate Research Assistant**  Jan 2016 - May 2019
*NDE Lab, Murray State University, Advisor: Dr. Gheorge Bunget*
Developed wavelet cross-correlation algorithm for filtering images to determine damage locations in materials from the United States Army and Vectren Corporation.

**Electrical Engineering Intern**  Summer 2017
*Berry Global, Evansville, IN*
Developed graphical user interface application for controlling systems throughout the facility based on sensor data.

**Teaching Assistant**  Jan 2016 - May 2019
*Murray State University*
Led weekly lab experiments for various physics courses. Topics included mechanics and electromagnetism.

**President**  Nov 2016 - May 2019
*IEEE Robotics Team, Murray State University*
Built autonomous robots that annually competed in the IEEE SoutheastCon Hardware Competition. Implemented computer vision and machine learning algorithms for embedded computer vision and lidar processing tasks. Led outreach activities to local elementary schools surrounding Murray State University in accordance with NASA grants. Placed 12th out of 46 schools in 2019.

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| **PUBLICATIONS** | **A Foveating Camera for Remote Eye Tracking** |
| | *IEEE International Conference on Computational Photography (Under Review), 2019* |
| | **Brevin Tilmon** and Sanjeev Koppal. |

**Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition**
*IEEE Transactions on Computational Imaging (In Revision), 2019*
Kristofer Henderson, Xiaomeng Liu, Justin Folden, **Brevin Tilmon**, Suren Jayasuriya, and Sanjeev Koppal

**Novel Approach of wavelet analysis for nonlinear ultrasonic measurements and fatigue assessment of jet engine components**
*American Institute of Physics, 2018*
Gheorge Bunget, **Brevin Tilmon**, Andrew Yee, Dylan Stewart, James Rogers, Matthew Webster, Kevin Farinholt, Fritz Friedersdorf, Marc Pepi, and Anindya Ghoshal.

**AWARDS**

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| **Graduate School Preeminence Award** - University of Florida | 2019-2024 |
| **Kirkland Fellowship** - University of Florida | 2019-2020 |
| **Sigma Pi Sigma** - Murray State University | 2019 |
| **Jesse D. Jones Endowment Scholarship** - Murray State University | 2015-2019 |
| **Engineering Physics Housing Scholarship** - Murray State University | 2015-2017 |

**SKILLS**

**Programming:** C++ and Python
**Software (strong skill):** OpenCV, Pytorch, MATLAB
**Software (moderate skill):** Tensorflow, Robotic Operating System, SolidWorks
**Operating Systems:** Linux(Ubuntu and Raspbian)/Mac OS
**Microcontrollers** Nvidia Jetson Nano, Raspberry Pi 3, Arduino
**Sensors** Cameras and Lidar(Slamtec)
**Citizenship:** U.S.A.
**Languages:** English