Brevin Tilmon

I am a PhD candidate skilled in computational imaging, computer vision and robotics. I have extensive lab experience interfacing and programming sensors such as machine vision cameras, depth sensors, and MEMS devices for developing advanced sensing technologies.

PERSONAL

Phone	(812) 568-3344
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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

- Brevin Tilmon, Eakta Jain, Silvia Ferrari, Sanjeev Koppal. "FoveaCam: A MEMS Mirror-Enabled Foveating Camera". ICCP 2020.
- 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.
- 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". TCI 2020.
- 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". AIP 2018.

EXPERIENCE

- **Graduate Research Assistant** 2019-Present
  Florida Optics and Computational Sensor Lab, University of Florida
  - Design algorithms and hardware for adaptive imaging systems (cameras, lidars, projectors).
- **Undergraduate Research Intern** 2018
  Florida Optics and Computational Sensor Lab, University of Florida
  - Developed projector-camera system contributing to a publication in Transactions on Computational Imaging.

- **Undergraduate Research Assistant** 2016-2019
  Non Destructive Evaluations Lab, Murray State University
  - Developed denoising wavelet algorithm in MATLAB that contributed to a publication in American Institute of Physics.

- **Electrical Engineering Intern** 2017
  Berry Global Inc.
  - Developed python application for real time control of production systems.

- **IEEE Robotics President** 2017-2019
  Murray State University IEEE Robotics Branch
  - Competed in IEEE SoutheastCon Hardware(Robotics) Competition. Developed fully autonomous robots with team of classmates, placed top 20 percent in 2018 and 2019.

- **Teaching Assistant** 2016-2019
  Murray State University
  - Instructed physics labs for electromagnetism and mechanics.

AWARDS

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

SKILLS

Programming: C/C++, Python, MATLAB
Frameworks: OpenCV, PyTorch, Darknet, Tensorflow
Miscellaneous: Circuit design, Solidworks and 3D printing, Machine shop basics
Graduate courses: Digital Signal Processing, Machine Learning, Adaptive Signal Processing