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GitHub - Google Scholar - Personal Website

Brevin Tilmon

BIO

I am currently getting my PhD in computer vision from the FOCUS Lab at the University of Florida, where I develop foveated imaging systems. My experience spans computer vision and machine learning, computational photography (depth sensors, cameras, etc), C++, and GPU programming. I published several papers and did research internships on these topics on computer vision teams at various tech companies.

EXPERIENCE

- **Snap Inc.**, *Research Intern, Computational Imaging Team* 2022
- **Meta**, *Research Intern, Reality Labs* 2021
- **NASA**, *Research Intern, Intelligent Robotics Group* 2021
- **University of Florida**, *Graduate Research Assistant, FOCUS Lab* 2019 - 2023

SOFTWARE

- **holoCu** [GitHub]. CUDA-accelerated holography
- **illumiGrad** [Github]. PyTorch-abstracted RGBD bundle adjustment

PUBLICATIONS

1. B. Tilmon, Z. Sun, S. J. Koppal, Y. Wu, G. Evangelidis, R. Zahrredine, G. Krishnan, S. Ma, and J. Wang."Energy-Efficient Adaptive 3D Sensing". **CVPR**, 2023. [Project Website]
2. B. Tilmon and S. J. Koppal. "SaccadeCam: Adaptive Visual Attention for Monocular Depth Sensing". **ICCV**, 2021. [Project Website]
3. B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal. "Fast Foveating Cameras for Dense Adaptive Resolution". **PAMI**, 2021. [Project Website]
4. B. Tilmon, E. Jain, S. Ferrari and S. J. Koppal. "FoveaCam: A MEMS Mirror-Enabled Foveating Camera". **ICCP**, 2020. [Project Website]
5. F. Pittaluga, Z. Tasneem, J. Folden, B. Tilmon, A. Chakrabarti and S. J. Koppal. "Towards a MEMS-based Adaptive LIDAR". **3DV**, 2020. [Project Website]
6. K. Henderson, X. Liu, J. Folden, B. Tilmon, S. Jayasuriya and S. J. Koppal. "Design and Calibration of a Fast Flying-Dot Projector for Dynamic Light Transport Acquisition". **Transactions on Computational Imaging**, 2020. [Project Website]

EDUCATION

- **University of Florida** 2019 - 2023 (Expected)
  PhD, Electrical and Computer Engineering
- **Murray State University** 2015 - 2019
  BS, Electrical Engineering, 3.8/4.0

SKILLS

- Computer Vision, Machine Learning, GPU Programming (CUDA, OpenGL), C++
- Linux, Embedded Systems, Electronics, Optics