

Anil Kumar Vadathya

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WORK EXPERIENCE

- Rice University** **Nov. 2018 – Present**
Research Engineer, Computational Imaging group *Houston, TX*
- As a lead engineer, I led technical efforts in developing technology, [FLASH-TV](#), for objectively measuring screentime (TV, mobile use)
 - Collaborated across a diverse team of pediatricians, behavioral researchers and engineers
 - FLASH-TV can track children's TV viewing with >85% accuracy
 - Built a gaze tracking tool using state-of-the-art **face detection, recognition and gaze estimation** methods.
 - Developed training techniques to bridge the gap between public datasets and FLASH requirements
 - Runs **real-time** on edge devices, deleting images after analysis, **preserving privacy**
 - Developed validation protocols under IRB guidelines, managed large scale HD video labeling database, and an inventory of state-of-the-art Nvidia edge devices (100k USD)
 - FLASH-TV efforts (2019-2021) led to an ongoing [NIH PO1 grant](#) (2022-2027)

EDUCATION

- Indian Institute of Technology (IIT) Madras** **June 2018**
MS in Electrical Engineering *Chennai, India*
- Masters thesis on “generative models for image restoration” won Qualcomm Innovation Fellowship-India
- Rajiv Gandhi University of Knowledge Technologies** **May 2015**
B. Tech in Electronics and Communications Engineering *Basar, India*

RELEVANT PUBLICATIONS

- **Anil Vadathya et al.** “FLASH-TV a machine learning pipeline to passively measure children's TV viewing: validation studies of the system,” under review at *Nature scientific reports*, 2024
- **Anil Vadathya et al.** “Development of family level assessment of screen use in the home for TV (FLASH-TV),” *Multimedia Tools and Applications*, 2023
- **Anil Vadathya et al.** “An Objective System for Quantitative Assessment of Television Viewing Among Children (Family Level Assessment of Screen Use in the Home-Television): System Development Study,” *JMIR Pediatric and Parenting*, 2022
- **Anil Vadathya**, Sharath Girish, Kaushik Mitra, “A unified learning-based framework for light field reconstruction from coded projections,” *IEEE Transactions on Computational Imaging*, 2019
- Akshat Dave, **Anil Vadathya.**, Ramana Subramanyam, Rahul Baburajan, Kaushik Mitra, “Solving Inverse Computational Imaging Problems using Deep Pixel-level Prior,” *IEEE Transactions on Computational Imaging*, 2018

PROFESSIONAL ACTIVITIES

- Reviewer for journals - IEEE TPAMI, IEEE TCI, Optics Express, IJCV
- Reviewer for conferences - CVPR, ECCV, WACV, ICIP, ICHI, Face and Gesture

SKILLS

Training, troubleshooting and deployment of deep neural networks for various applications.

Programming languages: Python, PyTorch, Tensorflow, MXNet, C, and Matlab;

Software platforms: GitHub, LaTeX, Docker containers, Linux, Windows;