

Anil Kumar Vadathya

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Research engineer with >5yrs of experience in machine learning, AI, and data analytics. I love building state-of-the-art AI products for challenging problems. Looking for roles where I can create a greater impact.

WORK EXPERIENCE

Rice University

Nov. 2018 – Present

Research Engineer, [Digital Health Initiative](#), ECE

Houston, TX

Visiting Engineer, [Dr. Teresia lab](#) at CNRC, BCM

- Led machine learning efforts to train, test, and deploy models for [FLASH-TV](#), a screentime tracking tool
 - >85% **accuracy** in measuring children's TV viewing behavior
 - deployed **state-of-the-art** *face detection*, *recognition* and *gaze estimation* methods
 - provides **objective** measurements, **reduces** human burden and **accurate** over parents self-report
 - equips pediatricians with tools to study **screentime effects** on children's **health**
- Collaborated across a diverse team of pediatricians and behavioral research staff
 - developed **secure** data collection protocols under **IRB** and HIPPA guidelines
 - trained staff for **labeling** data; maintained a large inventory of edge devices (100k USD)
- FLASH-TV is being deployed in participant's home for an ongoing [NIH PO1 grant](#) (2022-2027)
 - ensures **user privacy**, analyzing images locally on the device in **real-time**
 - <4% **failure rate** of devices; maintained an up-to-date [open-sourced](#) software

EDUCATION

Indian Institute of Technology (IIT) Madras

June 2018

MS in Electrical Engineering

Chennai, India

- Thesis on "generative models for image restoration" won **Qualcomm Innovation Fellowship**

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.** "An Objective System for Quantitative Assessment of TV Viewing Among Children (Family Level Assessment of Screen Use in the Home-Television): System Development Study," *JMIR*, 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
- Regular reviewer for top computer vision conferences - CVPR, ECCV, WACV, ICIP, ICHI, Face and Gesture

SKILLS

Machine learning, computer vision, deep learning, image and data analysis, scikit-learn, numpy, SQL; Training, optimizing neural networks; Python, PyTorch, Tensorflow, MXNet, C, BASH, Matlab; GitHub, Docker, Linux