

Aniket Rege

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EDUCATION

University of Wisconsin-Madison

2023 - present

PhD in Computer Sciences

Advisor: Prof. Ramya Korlakai Vinayak & Prof. Yong Jae Lee

University of Washington

2021 - 2023

MS in Electrical and Computer Engineering

Advisor: Prof. Ali Farhadi

National Institute of Technology Karnataka

2014 - 2018

B.Tech in Electronics and Communication Engineering

Advisor: Prof. Muralidhar Kulkarni

WORK EXPERIENCE

Meta, Redmond

May - Aug, 2025

Research Scientist Intern, Reality Labs

Advisors: Dr. Hyo Jin Kim & Dr. Yuning Chai

NVIDIA, Redmond

June - Sept, 2022

Applied Research Intern, Deep Learning for Autonomous Vehicles

Advisors: Dr. Nikolai Smolyanskiy & Dr. Stan Birchfield

Samsung Research India, Bangalore

2018 - 2021

AI Camera Research Engineer, Visual Intelligence Group

Advisors: Sudha Velusamy & Dr. Shankar Venkatesan

PUBLICATIONS

Preprints

* - equal contribution

1. **CuRe: Cultural Gaps in the Long Tail of Text-to-Image Models.**

Aniket Rege, Zinnia Nie, Mahesh Ramesh, Unmesh Raskar, Zhuoran Yu, Aditya Kusupati, Yong Jae Lee, Ramya Korlakai Vinayak.

Under review @ ICCV, 2025

Demographic Diversity in Computer Vision workshop @ CVPR, 2025 (Oral)

Conference Publications

6. **PAL: Sample-Efficient Personalized Reward Modeling for Pluralistic Alignment.**

Daiwei Chen, Yi Chen, Aniket Rege, Zhi Wang, Ramya Korlakai Vinayak.

International Conference on Learning Representations (ICLR), 2025

Models of Human Feedback for AI Alignment workshop @ ICML, 2024 (Oral)

Workshop on Behavioral Machine Learning @ NeurIPS '24 (Spotlight)

Pluralistic Alignment workshop @ NeurIPS '24

5. **AdANNS: A Framework for Adaptive Semantic Search.**

Aniket Rege*, Aditya Kusupati*, Sharan Ranjit S, Alan Fan, Qingqing Cao, Sham Kakade, Prateek Jain, and Ali Farhadi.

Neural Information Processing Systems (NeurIPS), 2023.

Practical ML for Developing Countries workshop @ ICLR 2023 (Oral).

4. **Matryoshka Representation Learning.**

Aniket Rege*, Aditya Kusupati*, Gantavya Bhatt*, Matthew Wallingford, Aditya Sinha,

Vivek Ramanujan, William Howard-Snyder, Kaifeng Chen, Sham Kakade, Prateek Jain, and Ali Farhadi.

Neural Information Processing Systems (NeurIPS), 2022.

Vision Transformers: Theory and Applications workshop @ NeurIPS, 2022 (Oral).

Self-Supervised Learning - Theory and Practice workshop @ NeurIPS, 2022.

Computer Vision in the Wild workshop @ ECCV, 2022.

3. **Spatio-Temporal Video Representation Learning for AI Based Video Playback Style Prediction.**
Rishubh Parihar*, Gaurav Ramola*, Ranajit Saha, Raviprasad Kini, **Aniket Rege**, and Sudha Velusamy.
Structured Representations for Video Understanding workshop @ ICCV, 2021.
2. **FabSoften: Face beautification via dynamic skin smoothing, guided feathering, and texture restoration.**
Sudha Velusamy, Rishubh Parihar, Raviprasad Kini, **Aniket Rege**.
Conference on Computer Vision and Pattern Recognition workshops (CVPR W), 2020.
New Trends in Image Restoration workshop @ CVPR, 2020.
1. **QUIC Protocol Performance in Wireless Networks.**
Prashant Kharat*, **Aniket Rege***, Aneesh Goel*, and Muralidhar Kulkarni.
IEEE International Conference on Communication and Signal Processing (ICCSP), 2018.

Patents

2. **Method and electronic device for detecting candid moment in image frame.**
Aniket Rege*, Gaurav Ramola*, Nikhar Maheshwari*, Sudha Velusamy, Girish Kulkarni,
Sai Pranav Mathivanan, Swadha Jaiswal, and Pradeep Kumar Vagireddi.
U.S. Patent App. 17/743,990, filed September 1, 2022.
1. **Method and electronic device for processing facial images.**
Sudha Velusamy, Rahul Varna, Raviprasad Kini, **Aniket Rege**, Rishubh Parihar, Daeyoung Hyun.
U.S. Patent 11,335,122, issued May 17, 2022.

Theses

1. **Congestion Control in Wireless Networks.**
Aniket Rege*, Aneesh Goel*, and Muralidhar Kulkarni.
Undergraduate Thesis, Electronics and Communication Engineering, NITK Surathkal, 2018.

SELECTED AWARDS AND HONORS

- **CS Departmental Scholarship**, UW-Madison 2023
- **NeurIPS Scholar Award** 2022
- **University of Washington Graduate School Award** for NeurIPS '22 2022
- **Samsung HQ Best Project Award** as founding member of **Single Take Camera**,
the USP of the Galaxy S20 smartphone 2021
- **Samsung Best Paper Award '19 Finalist** for FabSoften, later published at CVPR '20,
selected from all worldwide offices 2019
- **Samsung India Outstanding Contribution Award** for shipping
AI Beauty Solution to 50M+ smartphones worldwide 2019
- **Road to Global Entrepreneurship Summit (GES) '17 national finalist** for *An Analysis
of Sleep Hygiene*. Conducted by NITI Aayog under the Government of India. 2017

PROFESSIONAL RESPONSIBILITIES

- *Graduate Teaching Assistant*, University of Washington
 - CS 540: Introduction to Artificial Intelligence - Prof. Yudong Chen Fall 2023, 24
- *Graduate Teaching Assistant*, University of Washington
 - CSE 493: Deep Learning - Prof. Ranjay Krishna Spring 2023
 - CSE 547: Machine Learning for Big Data - Prof. Tim Althoff Winter 2023
 - EE 596: Computer Vision: Classical and Deep Methods - Dr. Stan Birchfield Fall 2021
- *Mentoring*
 1. **Zinnia Nie**, BS Computer Science and Data Science at UW Madison.
 2. **Ankit Pandey (Intern)**: AI Double Exposure Blending for Galaxy S22. Apr - Jul 2021
 3. **Nikhar Maheshwari (Intern)**: Automated Bokeh Classification for Galaxy S21. May - Jul 2020
- *Samsung University Representative* - Technical liason for hiring of students from NITK 2018 - 2021

EXTRACURRICULARS

Convener and Head, Indian Society for Technical Education, NITK

Apr 2017 - May 2018

Advisor: Dr. Basavaraju Manu, NITK

- Led a team of 100+ students to conduct technical talk and cross-domain technical projects across STEM fields, business, literature, and graphic design.
- Head of the Electrical Engineering special interest group.
- Initiated and organized the university's first cross-campus hackathon during the annual tech fest with SRIB.
- Pioneered NITK's first annual technical club project expo in association with IEEE-NITK.
- Initiated the formation of the club's alumni network on LinkedIn, as well as the club's first summer mentorship program.

Joint Convener and Head, Engineer (Technical Fest)

Aug - Oct 2017

- Joint head of NITK's annual technical fest, Engineer '17.
- Co-led the Technites committee, a three day expo of EECS projects primarily focused on embedded electronics.

Performing Artist (Vocals), NITK Music Club

Aug 2016 - May 2018

Volunteer Work

- *Swachhta Pakhwada*: campus and beach cleanup under the Swach Bharat scheme of the Ministry of Human Resource and Development (MHRD), Government of India. Sept 2016
- *Teacher, Doorstep School*: teaching Math and English to underprivileged children in construction sites around the Aundh Gaon area of Pune, India. May - Jun 2016
- *The Billion Tree Campaign*: planting and taking care of tree saplings over the course of a semester as part of the UN Environment Program (UNEP). Nov 2009