

Aniket Rege

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EDUCATION

University of Wisconsin-Madison

PhD in Computer Sciences

Advisor: Prof. Ramya Korlakai Vinayak

2023 - present

University of Washington

MS in Electrical and Computer Engineering

Advisor: Prof. Ali Farhadi

2021 - 2023

National Institute of Technology Karnataka

B.Tech in Electronics and Communication Engineering

Advisor: Prof. Muralidhar Kulkarni

2014 - 2018

WORK EXPERIENCE

NVIDIA, Redmond

Applied Research Intern, Deep Learning for Autonomous Vehicles

Advisors: Dr. Nikolai Smolyanskiy & Dr. Stan Birchfield

June - Sept, 2022

Samsung Research India, Bangalore

AI Camera Research Engineer in Visual Intelligence Group

Advisors: Sudha Velusamy & Dr. Shankar Venkatesan

2018 - 2021

PUBLICATIONS

Preprints

* - equal contribution

1. **PAL: Pluralistic Alignment Framework for Learning from Heterogeneous Preferences.**

Daiwei Chen, Yi Chen, **Aniket Rege**, Ramya Korlakai Vinayak.

Under Review, 2024

Conference Publications

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.

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.

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.

International Conference on Computer Vision (ICCV W), 2021.

SRVU 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 (CVPR W), 2020.

NTIRE 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. Jerry Zhu** Fall 2023
- *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
- *Mentor* - supervised two interns in the AI Camera team of the Visual Intelligence Group at SRIB.
 1. **Ankit Pandey**: AI Double Exposure Blending for Galaxy S22. Apr - Jul 2021
 2. **Nikhar Maheshwari**: Automated Bokeh Classification for Galaxy S21. May - Jul 2020
- *Samsung University Representative* - Technical liaison for hiring of students from NITK 2018 - 2021
- *Undergraduate Teaching Assistantship*, *Linear Signals and Systems* - Department of ECE, NITK 2015 - 2016

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

- *Swachchta 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*