Sateesh Kumar

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Google Scholar: bit.ly/4ffTLn6

Education

08/24– · · · **University of Texas at Austin**,
PhD student, Computer Science, Austin, Texas,
GPA – 4.0/4.0
Advisors: Prof. Georgios Pavlakos & Prof. Roberto Martin-Martin.

09/21–06/23 **University of California, San Diego**,
Master of Science in Computer Science, San Diego, California,
GPA – 3.97/4.0.
Advisor: Prof. Xiaolong Wang.

08/15–05/19 **National University of Computer and Emerging Sciences**,
Bachelor of Science in Computer Science, Karachi, Pakistan,
GPA – 3.91/4.0.
Bronze Medal – Ranked 3rd out of 332 students.

Publications

2025 **"COLLAGE: Adaptive Fusion-based Retrieval for Augmented Policy Learning"**,
Conference on Robot Learning (CoRL), 2025, 🔗.
Sateesh Kumar, Shivin Dass, Georgios Pavlakos*, Roberto Martín-Martín*

2023 **"The Devil is in the Details: A Deep Dive into the Rabbit Hole of Data Filtering"**,
International Conference on Computer Vision (ICCV), Datacomp Workshop, 2023, 🔗. ***(Ranked 1st at the ICCV DataComp challenge)***.
Haichao Yu, Yu Tian, **Sateesh Kumar**, Linjie Yang, Heng Wang.

2022 **"Graph Inverse Reinforcement Learning from Diverse Videos"**,
Conference on Robot Learning (CoRL), 2022 ***(Oral, top 6.5 %),*** 🔗.
Sateesh Kumar, Jonathan Zamora, Nicklas Hansen, Rishabh Janghir, Xiaolong Wang.

2022 **"Improving Explanations of Image Classifiers: Ensembles and Multitask Learning"**,
International Journal of Artificial Intelligence and Applications, 2022, 🔗.
Michael Pazzani, Severine Soltani, **Sateesh Kumar**, Kamran Alipour, Aadil Ahamed

2022 **"Unsupervised Activity Segmentation by Joint Representation Learning and Online Clustering"**,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022, 🔗.
Sateesh Kumar*, Sanjay Haresh*, Awais Ahmed, Zeeshan Zia, Quoc-Huy Tran.

2021 **"Learning by Aligning Videos in Time"**,
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021, 🔗.
Sateesh Kumar*, Sanjay Haresh*, Huseyin Coskun, Zeeshan Zia, Quoc-Huy Tran.

2020 **"Towards Anomaly Detection in Dashcam Videos"**,
IEEE Intelligent Vehicles Symposium (IV), 2020, 🔗.
Sateesh Kumar*, Sanjay Haresh*, Zeeshan Zia, Quoc-Huy Tran.

2019 **"Focused Anchor Loss: Cost-Sensitive learning of discriminative features for imbalanced classification"**,
Asian Conference on Machine Learning, 2019, 🔗.
Sateesh Kumar*, Bahram Baloch*, Sanjay Haresh*, Tahir Syed

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Patents

2025 **System and method for determining sub-activities in videos and segmenting the videos with little to no annotation**,
USPTO Granted Patent, 2022, Patent number: 12327409.
Sateesh Kumar, Quoc-huy Tran, Muhammad Zeeshan Zia, Andrey Konin, Sanjay Haresh

2024 **System and method for learning human activities from video demonstrations using video augmentation** ,
USPTO Granted Patent, 2024, Patent number: 11941080.
Sateesh Kumar, Quoc-huy Tran, Muhammad Zeeshan Zia, Andrey Konin, Sanjay Haresh

2022 **System and method for correlating video frames in a computing environment**,
USPTO Granted Patent, 2022, Patent number: 11368756.
Sateesh Kumar, Quoc-huy Tran, Muhammad Zeeshan Zia, Andrey Konin, Sanjay Haresh

2020 **System and Method for Building Computational Models of a Goal-Driven Task from Demonstration**,
USPTO Granted Patent, 2020, Patent number: 11017690.
Sateesh Kumar, Muhammad Zeeshan Zia, Quoc-Huy Tran, Andrey Konin, Sanjay Haresh

Research Experience

08/24– ··· **Graduate Research Assistant**, *CS, University of Texas at Austin*,
Advisors: Prof. Georgios Pavlakos & Prof. Roberto Martin-Martin.

07/23–08/24 **Research Engineer**, *ByteDance Inc.*,
Advisor: Dr. Heng Wang.

06/22–12/22 **Research Intern**, *ByteDance Inc.*,
Advisor: Dr. Heng Wang.

07/21–06/22 **Graduate Research Assistant**, *ECE, UC San Diego* ,
Advisor: Prof. Xiaolong Wang .

06/19–07/21 **Research Engineer**, *Retrocausal Inc.*,
Advisors: Dr. Zeeshan Zia & Dr. Quoc-Huy Tran.

06/18–12/18 **Research Intern**, *Stealth Startup*,
Advisors: Dr. Tahir Qasim & Dr. Furqan Khan .

Teaching Experience

Spring 2025 **Teaching Assistant**, *CS376: Computer Vision*, University of Texas at Austin.

Fall 2025 **Teaching Assistant**, *CS354P: Game Programming*, University of Texas at Austin.

Spring 2023 **Teaching Assistant**, *CS255: Data Analysis with Spark*, UC San Diego.

Spring 2022 **Teaching Assistant**, *ECE285: Introduction to Visual Learning*, UC San Diego.

Awards & Achievements

2023 **1st Place, ICCV DataComp Challenge 2023**: Ranked highest in large-scale multi-modal data filtering competition, competing with 15+ leading academic and industry teams.

2020 **Best Demo Award IEEE ISMAR 2020**: Selected as the best demo among 19 accepted demonstrations at a flagship augmented reality conference.

2019 Winner Data Science Competition, Softec'19 Lahore: **Ranked 1st out of 50 teams from across Pakistan.**

2018 City-Winner Fishackathon (Karachi) by Hackernest: **Placed in the top-40 out of 3500+ teams** participating from across the world. Received $\$5000$ AWS credits.

Workshop Presentations

2023 The devil is in the details: A deep dive into the rabbit hole of data filtering, Datacomp Workshop, ICCV 2023

2022 Ensembles for Improved Explanation of Image Classification, Explainable Artificial Intelligence for Computer Vision, CVPR, 2022

2022 Graph Inverse Reinforcement Learning from Diverse Videos, Deep RL Workshop, NeurIPS, 2022

2022 Unsupervised Action Segmentation by Joint Representation Learning and Online Clustering, Baylearn, 2022

2021 Learning by Aligning Videos in Time, Learning from Unlabelled Videos, CVPR, 2021

Invited Talks

2024 GraphIRL (CoRL 2022), talk at UT Austin Texas Robotics Seminar.

2022 GraphIRL (CoRL 2022), talk at Stanford Vision Lab.

2021 LAV (CVPR 2021), talk at IBA University.

Academic Service

2025 Reviewer, Conference on Robot Learning (CoRL)

2022 - 2024 Reviewer, European Conference on Computer Vision (ECCV)

2023 Reviewer, IEEE International Conference on Computer Vision (ICCV)

2022 - 2025 Reviewer, IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

2023 Reviewer, International Conference on Learning Representations (ICLR)

2023 Reviewer, IEEE Winter Conference on Applications of Computer Vision (WACV)

Skills

Programming Languages: Python, C++, C, Java.
Frameworks: Pytorch, Tensorflow, OpenAI Gym, Robosuite, VirtualHome, MuJoCo.
Other Primitive: AWS-EC2, Google Cloud, Linux, Docker, Kubernetes.

Last updated: Aug 2025