Srijan Das | Curriculum Vitae

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Education

- **Université Côte d'Azur (Lab: INRIA, Sophia Antipolis)** — **France**
  Ph.D. Computer Science — *2017–2020*
  Supervisor : Dr. Francois Bremond & Dr. Monique Thonnat
- **National Institute of Technology, Rourkela** — **India**
  M.Tech Computer Science & Engineering , GPA - 9.17/10 — *2015–2017*
- **St. Thomas' College of Engineering & Technology, Kolkata** — **India**
  B.Tech Computer Science & Engineering , GPA - 8.99/10 — *2011–2015*

Professional Experience

- **University of North Carolina at Charlotte** — **USA**
  Computer Science Department, Assistant Professor — *August 2022–Current*
- **Stony Brook University** — **USA**
  Robotics Lab, Postdoctoral Associate — *April 2021–July 2022*
- **INRIA** — **France**
  STARS Team, Researcher — *August 2017–November 2020*
- **INRIA** — **France**
  STARS Team, Masters' Internship — *January 2017–April 2017*
- **National Institute of Technology** — **India**
  Computer Science Department, Teaching Assistant — *July 2016–December 2016*

Career Highlights

- **May 2025:** Outstanding Reviewer for CVPR 2025.
- **May 2025:** Our research "Computer model aims to enhance video technology" highlighting the implications of AI video analysis is aired in WSOC-TV (**Link**).
- **Feb 2025:** Secured 3rd-place in the Elderly Action Recognition (EAR) Challenge, as a part of the Computer Vision for Smalls (CV4Smalls) Workshop at the WACV 2025 conference.
- **JUL 2023:** Best Poster Award at MVA 2023.
- **JUN 2022:** Secured 2nd-place in Ego4D challenge under the LTA Track at CVPR 2022.
- **DEC 2017 - NOV 2020:** Recipient of National Scholarship from UCA ED STIC.
- **OCT 2019:** Granted Student Travel Award at ICCV 2019.
- **JUN 2018:** Selected in FADEX Program 2018 Edition on Artificial Intelligence 2018.

- **OCT-DEC 2017:** Certificate of Outstanding Reviewer for FGCS and CEE Journal (elsevier).
- **AUG 2015 - JUN 2017:** Recipient of MHRD Scholarship through GATE 2015.
- **AUG 2014:** Cognizant Certified Student

Publications

Peer Reviewed Journal Publications

1. Saarthak Kapse, **Srijan Das**, Jingwei Zhang, Rajarsi R. Gupta, Joel Saltz, Dimitris Samaras, Prateek Prasanna, "Attention De-sparsification Matters: Inducing Diversity in Digital Pathology Representation Learning", Medical Image Analysis, MIA, ISSN: 1361-8415, Digital Object Identifier: 10.1016/j.media.2023.103070, MedIA, pp. 103070, 2024. [**Paper Link**] (IF-10.9)

2. Rui Dai, **Srijan Das**, Saurav Sharma, Luca Minciullo, Lorenzo Garattoni, Francois Bremond, Gianpiero Francesca, "Toyota smarthome untrimmed: Real-world untrimmed videos for activity detection", IEEE Transactions on Pattern Analysis and Machine Intelligence, TPAMI, ISSN: 0162-8828, Digital Object Identifier: 10.1109/TPAMI.2022.3169976, PAMI, pp. 2533-2550, 2022. [**Paper Link**] (IF-24.3)

3. **Srijan Das**, Rui Dai, Di Yang, Francois Bremond, "VPN++: Rethinking Video-Pose embeddings for understanding Activities of Daily Living", IEEE Transactions on Pattern Analysis and Machine Intelligence, TPAMI-2021-05-0786.R1, ISSN: 0162-8828, DOI: 10.1109/TPAMI.2021.3127885, PAMI, pp. 9703-9717, 2021. [**Paper Link**] (IF-24.3)

4. **Srijan Das**, Khan Muhammad, Sambit Bakshi, Imon Mukherjee, Pankaj K Sa, Arun Kumar Sangaiah, Andrea Bruno, "Lip Biometric Template Security Framework Using Spatial Steganography", Pattern Recognition Letters, pp. 102-110, 2018. [**Paper Link**] (IF-3.9)

5. **Srijan Das**, Arpita Dutta, Saurav Sharma, Sanghratna Godboley, "A Comparative Analysis of a novel Anomaly Detection algorithm with Neural Networks", International Journal of Rough Sets and Data Analysis (IJRSDA) vol. 4, issue 4, pp. 1–16, 2017. [**Paper Link**]

Peer Reviewed Conference Publications

1. Saarthak Kapse, Pushpak Pati, Srikar Yellapragada, **Srijan Das**, Rajarsi R Gupta, Joel Saltz, Dimitris Samaras, Prateek Prasanna, "GECKO: Gigapixel Vision-Concept Contrastive Pretraining in Histopathology", To Appear in Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), Honolulu, Hawai'i, October 2025. [**Paper Link**] (acceptance rate - 24%; tier 1)

2. Muhammad Usama Saleem, Ekkasit Pinyoanuntapong, Mayur Jagdishbhai Patel, Hongfei Xue, Ahmed Helmy, **Srijan Das**, and Pu Wang, "MaskHand: Generative Masked Modeling for Robust Hand Mesh Reconstruction in the Wild", To Appear in Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), Honolulu, Hawai'i, October 2025. [**Paper Link**] (acceptance rate - 24%; tier 1)

3. Dominick Reilly, Rajatsubhra Chakraborty, Arkaprava Sinha, Manish Kumar Govind, Pu Wang, Francois Bremond, Xue Le, and **Srijan Das**, "LLAVIDAL: A Large LAnguage VIsion Model for Daily Activities of Living", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), Nashville, USA, June 2025. [**Paper Link**] (acceptance rate - 22.1%; tier 1)

4. Arkaprava Sinha, Dominick Reilly, Francois Bremond, Pu Wang, and **Srijan Das**, "SKI Models: Skeleton Induced Vision-Language Embeddings for Understanding Activities of Daily Living", Proceedings of the 39th Annual AAAI Conference on Artificial Intelligence, Philadelphia, Pennsylvania, USA, February-March 2025. [**Paper Link**] (acceptance rate - 23.4%; tier 1)

5. Muhammad Usama Saleem, Ekkasit Pinyoanuntapong, Pu Wang, Hongfei Xue, **Srijan Das**, and Chen Chen, "GenHMR: Generative Human Mesh Recovery", Proceedings of the 39th Annual AAAI Conference on Artificial Intelligence, Philadelphia, Pennsylvania, USA, February-March 2025. [**Paper Link**] (acceptance rate - 23.4%; tier 1)

6. Wenhan Wu, Ce Zheng, Zihao Yang, Chen Chen, **Srijan Das**, and Aidong Lu, "Frequency Guidance Matters: Skeletal Action Recognition by Frequency-Aware Mixed Transformer", Proceedings of the 32nd ACM International Conference on Multimedia, Melbourne, Australia, October-November 2024. [**Paper Link**] (acceptance rate - 26.2%; tier 1)

7. Ekkasit Pinyoanuntapong, Muhammad Usama Saleem, Pu Wang, Minwoo Lee, **Srijan Das**, and Chen Chen, "BAMM: Bidirectional Autoregressive Motion Model", Proceedings of the 18^{th} European Conference on Computer Vision (ECCV), Milan, Italy, September-October 2024. [**Paper Link**] (acceptance rate - 27.9%; tier 1)

8. Prantik Howlader, **Srijan Das**, Hieu Le, and Dimitris Samaras, "Beyond Pixels: Semi-Supervised Semantic Segmentation with a Multi-scale Patch-based Multi-Label Classifier", Proceedings of the 18^{th} European Conference on Computer Vision (ECCV), Milan, Italy, September-October 2024. [**Paper Link**] (acceptance rate - 27.9%; tier 1)

9. Dominick Reilly, and **Srijan Das**, "Just Add π!: Pose Induced Video Transformers for Understanding Activities of Daily Living", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), pp. 18340-18350, Seattle, USA, June 2024. [**Paper Link**] (acceptance rate - 23.6%; tier 1)

10. Saarthak Kapse*, Pushpak Pati*, **Srijan Das**, Jingwei Zhang, Chao Chen, Maria Vakalopoulou, Joel Saltz, Dimitris Samaras, Rajarsi Gupta, and Prateek Prasanna, "SI-MIL: Taming Deep MIL for Self-Interpretability in Gigapixel Histopathology", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), pp. 11226-11237, Seattle, USA, June 2024. [**Paper Link**] (acceptance rate - 23.6%; tier 1)

11. Aritra Dutta, **Srijan Das**, Jacob Nielsen, Rajatsubhra Chakraborty, and Mubarak Shah, "Multi-view Aerial Visual Recognition (MAVREC): Can Multi-view Improve Aerial Visual Perception?", Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), pp. 22678-22690, Seattle, USA, June 2024. [**Paper Link**] (acceptance rate - 23.6%; tier 1)

12. **Srijan Das**, Tanmay Jain, Dominick Reilly, Pranav Balaji, Soumyajit Karmakar, Shyam Marjit, Xiang Li, Abhijit Das, and Michael S. Ryoo., "Limited Data, Unlimited Potential: A Study on ViTs Augmented by Masked Autoencoders", Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), pp. 6864-6874, Waikoloa Village, Hawaii, January 2024. [**Paper Link**] (acceptance rate - 41%; tier 2)

13. Rui Dai, **Srijan Das**, Michael Ryoo, Francois Bremond, "Attributes-Aware Network for Temporal Action Detection", Proceedings of the 34th British Machine Vision Conference (BMVC), Aberdeen, United Kingdom, November 2023. [in press] (oral presentation; tier 2)

14. **Srijan Das** and Michael Ryoo, "Cross-modal Manifold Cutmix for Self-supervised Video Representation Learning", Proceedings of 18th International Conference on Machine Vision Applications (MVA), pp. 1-6, Shizuoka, Japan, July 2023. [**Paper Link**] (tier 3) Best Poster Award!

15. Saarthak Kapse, **Srijan Das**, and Prateek Prasanna, "CD-Net: Histopathology Representation Learning using Pyramidal Context-Detail Network", Proceedings of the 20th IEEE International Symposium on Biomedical Imaging (ISBI), pp. 1-5, Cartagena, Colombia, April 2023. [**Paper Link**] (tier 3)

16. **Srijan Das** and Michael Ryoo, "ViewCLR: Learning Self-supervised Video Representation for Unseen Viewpoints", Proceedings of the IEEE Winter Conference on Applications of Computer Vision (WACV), pp. 5562-5572, Waikoloa Village, Hawaii, January 2023. [**Paper Link**] (acceptance rate - 35%; tier 2)

17. Jinghuan Shang, **Srijan Das**, and Michael S. Ryoo, "Learning Viewpoint-Agnostic Visual Representations by Recovering Tokens in 3D Space", Proceedings of the Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), pp. 31031–31044, New Orleans, USA, December 2022. [**Paper Link**] (acceptance rate - 25.6%; tier 1)

18. Xiang Li, Jinghuan Shang, **Srijan Das**, and Michael S. Ryoo, "Does Self-supervised Learning Really Improve Reinforcement Learning from Pixels?", Proceedings of the Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), pp. 30865–30881, New Orleans, USA, December 2022. [**Paper Link**] (acceptance rate - 25.6%; tier 1)

19. Rui Dai, **Srijan Das**, Kumara Kahatapitiya, Michael Ryoo, Francois Bremond, "MS-TCT: Multi-Scale Temporal ConvTransformer for Action Detection", Proceedings of the IEEE Conference on Computer Vision & Pattern Recognition (CVPR), pp. 20041-20051, New Orleans, USA, June 2022. [**Paper Link**] (acceptance rate - 25%; tier 1)

20. Rui Dai, **Srijan Das**, Francois Bremond, "CTRN: Class Temporal Relational Network For Action Detection", Proceedings of the 32nd British Machine Vision Conference (BMVC), pp. 1-12, United Kingdom, Virtual, November 22-25, 2021. [**Paper Link**] (acceptance rate - 36.2%; oral presentation - top 3%; tier 2)

21. Rui Dai, **Srijan Das**, Francois Bremond, "Learning an Augmented RGB Representation with

Cross-Modal Knowledge Distillation for Action Detection", Proceedings of the IEEE International Conference on Computer Vision (ICCV), pp. 13053-13064, Virtual, October 2021. [**Paper Link**] (acceptance rate - 25.9%; tier 1)

22. Snehasis Majhi, **Srijan Das** and Francois Bremond, "DAM: Dissimilarity Attention Module for Weakly-supervised Video Anomaly Detection", Proceedings of the 17th IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS), pp. 1-8, Virtual, November 2021. [**Paper Link**] (tier 3)

23. Abhijit Das, **Srijan Das** and Antitza Dantcheva, "Demystifying Attention Mechanisms for Deep Fake Detection", Proceedings of the IEEE International Conference on Automatic Face and Gesture Recognition (FG), pp. 1-7, Virtual, Jodhpur, India, December 2021. [**Paper Link**] (tier 3)

24. Snehasis Majhi, **Srijan Das**, Francois Bremond, Ratnakar Dash and Pankaj Kumar Sa, "Weakly-supervised Joint Anomaly Detection and Classification", Proceedings of the IEEE International Conference on Automatic Face and Gesture Recognition (FG), pp. 1-7, Virtual, Jodhpur, India, December 2021. [**Paper Link**] (tier 3)

25. Rui Dai, **Srijan Das**, Luca Minciullo, Lorenzo Garattoni, Gianpiero Francesca and Francois Bremond, "PDAN: Pyramid Dilated Attention Network for Action Detection", Proceedings of the IEEE Winter Conference on Applications of Computer Vision (WACV), pp. 2970-2979, Virtual, January 2021. [**Paper Link**] (acceptance rate - 34.5%; tier 2)

26. **Srijan Das**, Saurav Sharma, Rui Dai, Monique Thonnat, Francois Bremond, "VPN: Learning Video-Pose Embedding for Activities of Daily Living", Proceedings of the 16^{th} European Conference on Computer Vision (ECCV), pp 72–90, Virtual, August 2020. [**Paper Link**] (acceptance rate - 27.1%; tier 1)

27. **Srijan Das**, Monique Thonnat, Francois Bremond, "Looking deeper into Time for Activities of Daily Living Recognition", Proceedings of the IEEE Winter Conference on Applications of Computer Vision (WACV), pp. 487-496, Snowmass Village, Colorado, USA, March 2020. [**Paper Link**] (acceptance rate - 34.5%; tier 2)

28. **Srijan Das**, Rui Dai, Michal Koperski, Luca Minciullo, Lorenzo Garattoni, Francois Bremond, Gianpiero Francesca, "Toyota Smarthome: Real-World Activities of Daily Living", Proceedings of the IEEE International Conference on Computer Vision (ICCV), pp. 833-842, Seoul, South Korea, October - November 2019. [**Paper Link**] (acceptance rate - 25%; tier 1)

29. **Srijan Das**, Arpit Chaudhary, Francois Bremond, Monique Thonnat, "Where to Focus on for Human Action Recognition?", Proceedings of the IEEE Winter Conference on Applications of Computer Vision (WACV), pp. 71-80, Waikoloa Village, Hawaii, USA, January 2019. [**Paper Link**] (acceptance rate - 39%; tier 2)

30. **Srijan Das**, Monique Thonnat, Kaustubh Sakhalkar, Michal Koperski, Francois Bremond, Gianpiero Francesca, "A New Hybrid Architecture for Human Activity Recognition from RGB-D videos", Proceedings of the 25th International Conference on MultiMedia Modeling (MMM), pp.

493–505, Thessaloniki, Greece, January 2019. [**Paper Link**] (tier 3)

31. **Srijan Das**, Kaustubh Sakhalkar, Michal Koperski, Francois Bremond, "Spatio-temporal Grids for Daily Living Action Recognition", Proceedings of the Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), pp. 1-6, Hyderabad, India, December 2018. [**Paper Link**] (acceptance rate - 33%; tier 3)

32. **Srijan Das**, Michal Koperski, Francois Bremond, Gianpiero Francesca, "Deep-Temporal LSTM for Daily Living Action Recognition", Proceedings of the 14th IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS), pp. 1-6, Auckland, New Zealand, November 2018. [**Paper Link**] (tier 3)

33. **Srijan Das**, Michal Koperski, Francois Bremond, Gianpiero Francesca, "Action Recognition based on a mixture of RGB and Depth based skeleton", Proceedings of the 14th IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS), pp. 1-6, Lecce, Italy, August - September 2017. [**Paper Link**] (tier 3)

34. **Srijan Das**, Saurav Sharma, Sambit Bakshi, Imon Mukherjee, "A Framework for Pixel Intensity Modulation Based Image Steganography", Proceedings of International Conference on Advanced Computing and Intelligent Engineering (ICACIE), pp. 3–14, Bhubaneswar, India, December 2016. [**Paper Link**] (tier 3)

35. Imon Mukherjee, Biswajita Datta, Reeturaj Banerjee, **Srijan Das**, "DWT Difference Modulation Based a Novel Steganographic Algorithm", Proceedings of 11th International Conference on Information Systems Security (ICISS), pp. 573–582, Kolkata, India, December 2015. [**Paper Link**] (tier 3)

Peer Reviewed Workshop Publications

1. Dominick Reilly, Srijita Das, and **Srijan Das**, "Learning Pose-aware Representations in Vision Transformers for Understanding Activities of Daily Living", To Appear Proceedings of the 8th Workshop and Competition on Affective & Behavior Analysis in-the-wild at CVPR 2025 (CVPRW), Nashville, USA, June 2025. [**Paper Link**]

2. Mahmoud Ali, Di Yang, Arkaprava Sinha, Dominick Reilly, **Srijan Das**, Gianpiero Francesca, Francois Bremond, "Quo Vadis, Video Understanding with Vision-Language Foundation Models?", In NeurIPS 2024 workshop on Video-Language Models, Vancouver, Canada, December 2024. [**Paper Link**]

3. Shukesh Reddy, Nishit Poddar, **Srijan Das**, and Abhijit Das, "Self-supervised Auxiliary Learning for Texture and Model-based Hybrid Robust and Fair Featuring in Face Analysis", Proceedings of ICPR 2024 workshop on Fairness in Biometrics (FairBio), Kolkata, India, December 2024. [**Paper Link**]

4. Yaying Shi, **Srijan Das**, and Yonghong Yan, "Upscaling Prostate Cancer MRI Images to Cell-level Resolution Using Self-supervised Learning", In MICCAI Workshop on Computational Pathology with Multimodal Data at MICCAI 2024, Marrakesh, Morocco, October 2024. [**Paper Link**]

5. Aashish Chandra K, Aashutosh A V, **Srijan Das**, and Abhijit Das, "Latent Flow Diffusion for Deepfake Video Generation", Proceedings of the 2nd Workshop and Challenge on DeepFake Analysis and Detection at CVPR 2024 (CVPRW), pp. 3781-3790, Seattle, USA, June 2024. [**Paper Link**]

6. Pranav Balaji, Abhijit Das, **Srijan Das** and Antitza Dantcheva, "Attending Generalizability in Course of Deep Fake Detection by Exploring Multi-task Learning", Proceedings of the Workshop and Challenge on DeepFake Analysis and Detection at ICCV 2023 (ICCVW), pp. 475-484, Paris, France, October 2023. [**Paper Link**]

Patents Application (Online available)

1. Gianpiero Francesca, Luca Minciullo, Lorenzo Garattoni, **Srijan Das**, Rui Dai, Francois Bremond. METHOD FOR RECOGNIZING ACTIVITIES USING SEPARATE SPATIAL AND TEMPORAL ATTENTION WEIGHTS. Publication Number 20230134967, International Application No 17/754,685 (Publication date May 4, 2023).

Manuscripts under Review

1. Dominick Reilly, Manish Kumar Govind, and **Srijan Das**, "VisCoP: Visual Probing for Domain Adapatation of Vision Language Models", Under Review.

2. Dominick Reilly, Manish Kumar Govind, and **Srijan Das**, "From My View to Yours: Ego-Augmented Learning in Large Vision Language Models for Understanding Exocentric Daily Living Activities", Under Review.

3. Arkaprava Sinha, Monish Soundar Raj, Pu Wang, Ahmed Helmy, and **Srijan Das**, "MS-Temba: Multi-Scale Temporal Mamba for Efficient Temporal Action Detection", Under Review.

4. Ali Khaleghi Rahimian, Manish Kumar Govind, Subhajit Maity, Dominick Reilly, Christian Kümmerle*, **Srijan Das***, and Aritra Dutta*, "Fibottention: Inceptive Visual Representation Learning with Diverse Attention Across Heads", Under Review. * Equal Contribution as Project Lead.

Patents Filed

1. **Srijan Das** and Aritra Dutta. Multiview Aerial Visual Recognition, US Patent Application No. 63/701,106 filed on Sep 30, 2024.

2. **Srijan Das** and Dominick Reilly. METHODS, APPARATUS, AND COMPUTER PROGRAM PRODUCTS FOR PROGRESSIVELY TRAINING A MODEL AND GENERATING NATURAL LANGUAGE OUTPUTS, US Patent Application No. 63/693,982 filed on Sep 12, 2024.

3. **Srijan Das**, Rui Dai, Francois Bremond, Luca Minciullo, Lorenzo Garattoni, Gianpiero Francesca. METHOD AND SYSTEM FOR DETECTING AN ACTION IN A VIDEO CLIP. European Patent Application EP20306343.3, filed in 05/2022.

Extramural Funding

Peer Reviewed National and International Grants

- **(PI)** NSF Computer and Information Science and Engineering Research Initiation Initiative (CRII), *'Understanding Activities of Daily Living in Indoor Scenarios'*, 08.01.2023 - 01.31.2026, $175,000 for 30 months.
- **(Co-PI)** NSF Center for Identification Technology Research (CITeR) (Gateway Project), *'Study of Identity Preservation in Deepfake Face Swapping Tools & 3D Mask Creation'*, 08.01.2024 - 07.31.2025, $50,000 for 12 months, with Stephanie Schuckers (PI).
- **(PI)** The Chateaubriand Fellowship, Awarded to Dominick Reilly by the French Embassy in the USA, 02.01.2024 - 05.31.2024, Fellowship award for 4 months including travel to France, research conducted with the STARS Team at INRIA, Sophia Antipolis, France.

Industry Grants

- **(Co-PI)** Industry funds from Lowe's Companies, Inc., *'Smart Store Initiative'*, 01.01.2023 - 12.31.2025, $250,000 for 24 months, with Pu Wang (PI).
- **(Co-PI)** Industry funds from CorVid Technologies, *'Mechanical and thermal design optimization of multifunctional battery systems'*, 06.01.2023 - 05.31.2025, $39,000 (out of $750,000) for 24 months, with Alireza Tabarraei (PI) and Anthony Bombik (PI).

Peer Reviewed Institutional Grants

- **(Co-PI)** School of Data Science Summer Seed Grant Program 2025, *'Topology Optimization Using Physics-Informed Graph Neural Networks'*, 05.15.2025 - 09.15.2025, $15,000 for 5 months, with Alireza Tabarraei (PI).
- **(PI)** UNC Faculty Research Grant 2024, *'Learning Video Representation from First-person and Third-person Views for Elderly Care'*, 07.01.2024 - 12.31.2025, $8,000 for 18 months.
- **(Co-PI)** School of Data Science Summer Seed Grant Program 2023, *'Image Deep Learning Assisted Battery Safety Risk Identification Upon Minor Mechanical Deformation'*, 05.15.2023 - 08.14.2023, $5,000 for 4 months, with Jun Xu (PI).

Other Peer Reviewed Resource Grants

- **(PI)** National Artificial Intelligence Research Resource Pilot, *'Developing a Large Vision-Language Model for Elderly Monitoring'*, 11.08.2024 - 08.07.2026, $8,500 OpenAI credits and 9,560 node hours for 18 months.

Student Supervision

Doctoral Students Supervised

1. **Dominick Reilly** **(Pre-proposal)**
   University of North Carolina at Charlotte, USA *August 2022–Current*
   Thesis - *Multimodal Representation Learning for Activities of Daily Living*

2. **Arkaprava Sinha** **(Pre-QE)**
University of North Carolina at Charlotte, USA *August 2023–Current*
Thesis - *Learning spatio-temporal representation for Long Untrimmed Videos*

3. **Manish Kumar Govind** **(Pre-QE)**
University of North Carolina at Charlotte, USA *January 2025–Current*
Thesis - *Vision Language Models for Robot Leanring*

4. **Weston Bondurant** **(Pre-QE)**
University of North Carolina at Charlotte, USA *January 2025–Current*
Thesis - *3D Vision induced Video Generation*

5. **Wenhao Chi** **(Pre-QE)**
University of North Carolina at Charlotte, USA *August 2025–Current*
Thesis - *Egocentric Vision*

Masters Students Supervised

1. **Manish Kumar Govind** **Research Assistant**
University of North Carolina at Charlotte, USA *Aug 2023–Dec 2024*
Independent Project - *Efficient Learning in Vision Transformers*

2. **Vishal Bondili** **Research Assistant**
University of North Carolina at Charlotte, USA *May 2023–Dec 2023*
Independent Project - *Real-time Action Detection*

3. **Jonathan Lorray** **Research Assistant**
University of North Carolina at Charlotte, USA *Mar 2023–Dec 2023*
Independent Project - *Semi-supervised Action Recognition*

Bachelors Students Supervised

1. **Nitin Chandrasekhar**
University of North Carolina at Charlotte, USA *May 2025–Current*
REU - *Vision-Language-Action Models for Robot Learning*

2. **Drew O'Donnell**
University of North Carolina at Charlotte, USA *May 2025–Aug 2025*
REU - *Teleoperation for Robot Learning*

3. **Monish Soundar Raj**
University of North Carolina at Charlotte, USA *Aug 2024–May 2025*
Research Assistant - *Hierarchical Temporal Mamba for Action Detection*

4. **Jack Douglass**
University of North Carolina at Charlotte, USA *Jan 2025–May 2025*
Independent Study - *Mamba for Video Summarization*

5. **Sindhu Gadiraju** **OUR Scholar**
University of North Carolina at Charlotte, USA *Jan 2024–May 2024*
OUR Program - *Prompt Generation for Video Conversational Models*

6. **Naveen Vellaturi**
University of North Carolina at Charlotte, USA *Jan 2024–May 2024*
Independent Study - *Interpretable Video Models*

7. **Ian Boyle**
University of North Carolina at Charlotte, USA *Jan 2023–May 2023*
Independent Study - *Video Transformers for understanding Activities of Daily Living*

Non-Degree Students Supervised

1. **Srujan Ponnapalli**, High School Student, Cuthbertson High School, May 2023–Aug 2023.
2. **Sai Siddhartha Nelluri**, High School Student, Cuthbertson High School, May 2023–Aug 2023.
3. **Jacob Nielsen**, Masters' Student, SDU, Denmark, Aug 2022–Aug 2023.
4. **Tanmay Jain**, Remote Intern, UG Student, DTU, India, Aug 2022–Mar 2023.
5. **Soumyajit Karmakar**, Remote Intern, UG Student, IIIT Guwahati, India, Aug 2022–Mar 2023.
6. **Shyam Marjit**, Remote Intern, UG Student, IIIT Guwahati, India, Aug 2022–Mar 2023.

Teaching

Major Accomplishments

- I am teaching the Computer Vision course at UNC Charlotte for 4 semesters which is a combined Undergraduate and Graduate level course. This course encourages the UG and Master students to pursue ambitious AI projects solving campus related problems. Some of these projects also involved deploying realtime computer vision algorithms in a GPU enabled workstation which are showcased for CS@Demos at UNC Charlotte for educational outreach.
- Mentored projects from external sponsors - I have mentored the computer vision projects pitched by Coral Reef Foundation (CRF) including participation in their internal meetings in Fall 2022 and Spring 2023. These projects (codes and reports) are successfully delivered to the sponsors.

Courses Taught

- **Graduate Courses:** Instructor of ITCS 5152 001 Computer Vision Course and ITCS 6010/8010 Topics of Computer Science – Advanced Computer Vision at UNC Charlotte in Fall 2022, Spring 2023, Fall 2023, Spring 2024 and Fall 2024. (avg enrollment = 29.25)
- **Undergraduate Courses:** Instructor of ITCS 4152 001 Computer Vision Course at UNC Charlotte in Fall 2022, Spring 2023, Fall 2023, Spring 2024 and Spring 2025. (avg enrollment = 18.25)
- **Other Courses:** Conducted 2 Lectures at SKFGI Webinar series 2020 on "Surviving the Deep Learning Apocalypse" in August 2020.
- **Other Courses:** Conducted 3 Lectures on Deep Learning for Computer Vision at 3IA Cote d'Azur for students of MSc of Data Science and Artificial Intelligence in Fall 2019.

Service and Outreach

External Service

Invited Talks & Presentations

- Invited Talk on "LLAVIDAL: A Large LAnguage VIsion Model for Daily Activities of Living" in the first special WACV 2025 Meetup Series. (May 2025)
- Invited Academic Talk on "Improved Reasoning in AI Models for Deepfake Detection" in Martigny Biometrics Workshop co-organised by the European Association for Biometrics (EAB), the Center for Identification Technology Research (CITeR) and the Idiap Research Institute at Idiap in Martigny, Switzerland. (May 2025)
- Invited research poster presentation at the Computing Community Consortium (CCC) Computing Futures Symposium in Washington, DC, USA. (May 2025)
- Panelist on "Exploring Creativity in the Age of AI: A Conversation with Head of U.S. Copyright

Office" at UNC Charlotte. (April 2025)
- Guest Lecture on "Deep Neural Networks" at The University of Michigan-Dearborn. (Mar 2025)
- Talk on "Computer Vision Projects in CharMLab" in a RoundTable discussion on AI in conjunction with the Defense Alliance of NC (DANC) and the Michael Best Law Firm. (Mar 2024)
- Invited Online Tech Talk on "From Pixels to Robots: Recipes for Vision-Enabled Robot Learning" at Christ University, Bangalore, India. (Feb 2024)
- Invited Talk on "Video Understanding using AI" as part of the "AI and ROS for Robotics: Theory and Practice" short-term training program at IIITDM. (Dec 2023)
- Invited Talk on "Computer Vision for Robot Learning" as part of the "AI and Machine Vision for Robotics" short-term training program at IIITDM. (June 2023)
- Talk on "From Few to More: Enhancing ViT Performance on Limited Data" at PHPC Lab in UNC Charlotte. (April 2023)
- Talk on "From Pixels to Robots: Recipes for Vision-Enabled Robot Learning" at the Seminar on Controls and Robotics in UNC Charlotte. (March 2023)
- Talk on "Quo vadis, computer vision!" at the PhD seminar in UNC Charlotte. (January 2023)
- Invited Talk on "Multiple Modalities are All You for Video Understanding!" in special session titled "Stochastic Optimization Methods in Machine Learning–II" at the Seventh ICCOPT, Bethlehem, Pennsylvania, USA. (Jul 2022)
- Invited Talk in AICTE sponsored Short Term Course on "Multiple Modalities are all you need for Video Understanding!" at IIITDM Kancheepuram. (March 17, 2022)
- Talk on "Vision for understanding Activities of Daily Living" at SciTech Talks. (September 4, 2021)
- Seminar talk on "How to combine modalities for understanding Activities of Daily Living? " for CSE 600 at Stony Brook University, NY, USA. (April 30, 2021)
- Seminar talk on "How to combine RGB & Poses for understanding Activities of Daily Living?" at Université Lumière Lyon 2 (November 23, 2020).
- Talk on "Spatio-temporal attention mechanisms for Activities of Daily Living" at Nice Data Science meetup (November 28, 2019)
- Talk on "Activity Recognition for Healthcare" at Summer School Brain Innovation Generation @ UCA (August 30, 2018)

Journal/Conference Reviewer

- Reviewer at ICACIE 2017, 2018, SETIT 2018, KCST 2019, ICAML 2019, AVSS 2019, 2022, WACV 2020, 2021, 2022, 2023, 2026, CVPR 2021, 2022, 2023, 2024, 2025, 2026, ICRA 2025, ECCV 2022, 2024, ICCV 2021, 2023, 2025, IROS 2021, 2024, ACCV 2024, NeurIPS 2023, 2024.
- Reviewer at TPAMI, IJCV, Patter Recognition, Elsevier Journal of CVIU, Elsevier Journal of FGCS, Elsevier Journal of Computer & Electrical Engineering, MTAP, and Journal of Signal Processing: Image Communication.

Program Committees/Editorial Boards

- Area Chair for NeurIPS 2025.
- Associate Editor for ICRA 2024 in the Area of Vision and Sensor-Based Control.
- Member of the DEI committee for CVPR 2023.
- Senior Program Committee Member (Area Chair) for AAAI 2023, 2024, and 2026.

Community Service

- Organizer for a workshop on "Artificial Intelligence for Automated Human Health-care and

Monitoring" at the 17th International Conference on Automatic Face and Gesture Recognition (FG) 2023.
- Session chair for Image Understanding & Activity Recognition session at IPAS 2020.
- Mentored for B.E.N.J.I. in GirlScript Summer of Code 2019 edition.
- Mentor for the Emerging Technology Business Incubator (ETBI) Led by NIT Rourkela, a platform envisaged to transform the start-up ecosystem of the region.
- Volunteer at ICACNI 2014, ICACNI 2016, ICCV 2019, ICLR 2020 & ICML 2020.

Internal Service

Department Committees

- PhD Recruit and Review Committee Member (2022-23)
- AIRG Concentration Committee Member (2023-24)
- Research Committee Member (2023-current)

Ph.D. Dissertation/Baccalaureate (Honors) Committees

- External member of the Ph.D. Defense Committee for Hoang Vu Nguyen, advised by Dr. Dimitris Samaras at Stony Brook University (2015-2025)
- External member of the Ph.D. Defense Committee for Kumara Kahatapitiya, advised by Dr. Michael S. Ryoo at Stony Brook University (2019-2025)
- Ph.D. Defense Committee member for Wenhan Wu, advised by Dr. Aidong Lu (2022-2024)
- Ph.D. Defense Committee member for Yaying Shi, advised by Dr. Yonghong Yan (2022-2024)
- University Honors Program Committee Member for Ishan Patel (2024)
- Graduate Faculty Representative in the Ph.D. Defense Committee for Jincheng Zhang in Electrical Engineering (April 2024)
- Dissertation Proposal Defense Committee member for Ekkasit Pinyoanuntapong, advised by Dr. Pu Wang (2022-Current)