# Srikumar Sastry

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## Education

#### Washington University in St Louis

St Louis, MO, US

PhD Candidate in Imaging Science

Aug 2022 - present

o GPA: 3.97/4.0

- Coursework: Machine Learning, Theoretical Imaging Science, Large Scale Optimization, Large Language Models
- Advised by Dr. Nathan Jacobs. Focusing on applications of multimodal learning in computer vision, remote sensing and ecology.

## University of Twente

Enschede, Netherlands

Aug 2020 - May 2022

 $MS\ Geoinformatics$ 

- o GPA: 9.12/10.0 (cum laude)
- o Coursework: Image Analysis, Advanced Image Analysis, Spatio-Temporal Modeling

DA-IICT Gandhinagar, India

BTech Information and Communication Technology

Aug 2016 – May 2020

o GPA: 7.98/10.0 (distinction)

o Coursework: System Software, Software Engineering, Statistical Communication Theory

## **Publications**

- Srikumar Sastry, Subash Khanal, Aayush Dhakal, Adeel Ahmad and Nathan Jacobs. "TaxaBind: A Unified Embedding Space for Ecological Applications." IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) (2025). (Oral Presentation)
- Anindya Sarkar\*, Srikumar Sastry\*, Aleksis Pirinen, Chongjie Zhang, Nathan Jacobs and Yevgeniy Vorobeychik. "GOMAA-Geo: GOal Modality Agnostic Active Geo-localization." Neural Information Processing Systems (NeurIPS) (2024).
- Subash Khanal, Eric Xing, Srikumar Sastry, Aayush Dhakal, Zhexiao Xiong, Adeel Ahmad and Nathan Jacobs. "PSM: Learning Probabilistic Embeddings for Multi-scale Zero-Shot Soundscape Mapping." ACM Multimedia (2024).
- Srikumar Sastry, Subash Khanal, Aayush Dhakal and Nathan Jacobs. "GeoSynth: Contextually-Aware High-Resolution Satellite Image Synthesis." IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW) (2024): 460-470.
- Aayush Dhakal, Adeel Ahmad, Subash Khanal, Srikumar Sastry and Nathan Jacobs. "Sat2Cap: Mapping Fine-Grained Textual Descriptions from Satellite Images." IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW) (2024): 533-542. (Best Paper Award, Oral Presentation)
- Xin Xing, Zhexiao Xiong, Abby Stylianou, Srikumar Sastry, Liyu Gong and Nathan Jacobs. "Vision-Language Pseudo-Labels for Single-Positive Multi-Label Learning." IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW) (2024): 7799-7808.
- Srikumar Sastry, Subash Khanal, Aayush Dhakal, Di Huang and Nathan Jacobs. "BirdSAT: Cross-View Contrastive Masked Autoencoders for Bird Species Classification and Mapping." IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) (2024): 7121-7130.
- Aayush Dhakal, Subash Khanal, Srikumar Sastry, Adeel Ahmad and Nathan Jacobs. "GeoBind: Binding Text, Image, and Audio through Satellite Images." IEEE International Geoscience and Remote Sensing Symposium (2024): 2729-2733. (Oral Presentation)
- Subash Khanal, Srikumar Sastry, Aayush Dhakal and Nathan Jacobs. "Learning Tri-modal Embeddings for Zero-Shot Soundscape Mapping." British Machine Vision Conference (2023).

## Experience

## PhD Research Intern

Dolby Laboratories

 $Sunnyvale,\ CA$ 

May 2025 - August 2025

• Working on multimodal learning for Egocentric videos understanding.

## Machine Learning Researcher

IARPA SMART **∠** — Kitware

St Louis, MO

Aug 2022 - July 2024

 Developed self-supervised learning methods for global-scale change characterization involving multi-sensor and multitemporal satellite images.

## Academic Service

## Reviewing

## o Conferences

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) [2025]
- International Conference on Machine Learning (ICML) 2025
- International Conference on Learning Representations (ICLR) [2025]
- ACM International Conference on Multimedia (ACM MM) [2025]
- International Conference on Artificial Intelligence and Statistics (AISTATS) [2025]
- Neural Information Processing Systems (NeurIPS) [2024] (Outstanding Reviewer, Top 8%)
- European Conference on Computer Vision (ECCV) [2024]

#### o Journals

- Transactions on Machine Learning Research (TMLR) 2025
- International Society for Photogrammetry and Remote Sensing (ISPRS) [2024]

## • Workshops

- Earthvision, CVPR [2025]
- CV4EO, WACV [2024, 2025]

#### **Teaching**

- o Center for Environment Undergraduate Research Mentor, Summer [2023, 2024]
- o Graduate Student Instructor, CSE 559A Spring 2023

## Memberships

IEEE Geoscience and Remote Sensing Society (GRSS)2021 - PresentInternational Society for Photogrammetry and Remote Sensing (ISPRS)2022 - PresentIEEE Computer Society2025 - Present