

Sriram Krishna

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Education

Carnegie Mellon University

PHD IN ROBOTICS

Pittsburgh, PA

Aug 2026 -

Carnegie Mellon University

MASTER OF SCIENCE IN ROBOTICS - GPA: 3.95/4.0

Pittsburgh, PA

Aug 2024 - Jun 2026

PES University

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING - GPA: 8.99/10.0

Bengaluru, India

Aug 2017 - May 2021

Experience

Carnegie Mellon University - Robotics Institute

GRADUATE RESEARCH ASSISTANT

Pittsburgh, PA

Aug. 2024 - Jun. 2026

- **Robots Perceiving and Doing Lab (R-PAD)** - Advised by **David Held**
- Developed methods for cross-task generalization in manipulation through learning embodiment-agnostic representations from *human demonstrations*, enabling human-to-robot transfer and generalization to new tasks on real hardware. **(RSS 2026)**
- Developed manipulation policies robust to camera viewpoint shifts by learning camera-pose-invariant visual representations, enabling zero-shot sim-to-real transfer under randomized camera configurations. **(Under Review)**
- *Dexterous Manipulation*: Collaborating on hierarchical policy learning for articulated tool-use. **(Under Review)**
- *Mentoring*: (i) Automatic sub-goal extraction of arbitrary video demonstrations; (ii) H2RBench, a real-to-sim benchmark for standardized evaluation of human-to-robot transfer methods. **(Under Review)**

Samsung Research

SOFTWARE ENGINEER - COMPUTER VISION

Bengaluru, India

Dec. 2021 - Apr. 2024

- **AR Vision Lab - Depth Estimation and 3D Scene Reconstruction** - Development of Spatial Understanding solutions
- Research and Development on depth estimation by leveraging a range of machine learning techniques such as self-supervised learning and knowledge distillation.
- Optimized models for real-time on-device inference and integrated depth subsystems into 3D Reconstruction pipeline.
- Designed and developed **DeepSmooth**, a model which achieved SOTA results for temporal consistency in depth completion. Paper presented at **VOCVALC workshop @ CVPR 2023**.
- Proposed the design and led implementation for ground truth data generation of depth / segmentation for an arbitrary camera system using a laser scanner & motion capture.
- Served as on-site liaison at Samsung HQ (Korea) across multiple visits, coordinating directly with HQ teams to resolve cross-site technical and project issues.
- *Mentoring*: Synthetic data generation of procedurally generated room scale scenes to develop data pipelines for training and evaluating depth estimation models.
- Tech Stack: C++, PyTorch, Qualcomm SNPE, CMake, ONNX

MIDAS-IIIT Delhi

RESEARCH ASSISTANT - PART TIME

New Delhi, India

Jun. 2021 - Jul. 2023

- Improved reliability of Automated Scoring systems by bringing humans into the loop. Achieves significant gains in accuracy of evaluation while adapting to varying budgets of human evaluators. Presented at **EAAI 2022**, organized jointly with AAAI-22
- Used Topological Data Analysis (TDA) methods for modeling the coherence of natural language text. We show that with an appropriate representation, we can achieve state-of-the-art results with a simple MLP. Accepted in The **Tiny Papers Track @ ICLR 2024**.

Nextuple Inc.

SOFTWARE ENGINEER

Bengaluru, India

Jul. 2021 - Dec. 2021

- Built Nextuple's Machine Learning Platform. Integrated the platform into existing infrastructure following best practices (logging, visualization, etc.) Tech Stack: Azure, Kubernetes, KubeFlow

SOFTWARE ENGINEER - INTERN

Jan. 2021 - July. 2021

- Developed a simulation demonstrating a new sourcing model, showing 20% reduction in shipping costs and 20-50% reduction in the number of shipments. Designed and developed the simulation flow and core logic in a modular architecture.

- Developed **GESTOP**, an application for customizable gesture control of computer systems. The application provides an interface to communicate with a computer through hand gestures. Custom gestures to be recognized can be added to extend the application.
- Designed, developed and extensively documented the entire application.
- Accepted in the systems track at **CODS-COMAD 2021**.

Publications

- **Sriram Krishna**, Ben Eisner, Haotian Zhan, Ying Yuan, Haoyu Zhen, Chuang Gan, Shubham Tulsiani, and David Held. [GHOST: Hierarchical Sub-Goal Policies for Generalizing Robot Manipulation](#). In *Robotics: Science and Systems (RSS)*, 2026.
- **Sriram Krishna**, Sravan Chittupalli, and Sungjae Park. [BG-HOP: A Bimanual Generative Hand-Object Prior](#). In *CVPR 2025 - Agents in Interaction, from Humans to Robots Workshop*, 2025.
- Samyak Jain*, Rishi Singhal*, **Sriram Krishna***, Yaman Kumar Singla, and Rajiv Ratn Shah. [Beyond Words: A Topological Exploration of Coherence in Text Documents](#). In *The Second Tiny Papers Track at ICLR*, 2024.
- **Sriram Krishna** and Basavaraja Shanthappa Vandrotti. [DeepSmooth: Efficient and Smooth Depth Completion](#). In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023) - VOCVALC Workshop*, pages 3357–3366, 2023.
- Yaman Kumar Singla*, **Sriram Krishna***, Rajiv Ratn Shah, and Changyou Chen. [Using sampling to estimate and improve performance of automated scoring systems with guarantees](#). In *Proceedings of the AAAI Conference on Artificial Intelligence - Educational Advances in Artificial Intelligence*, 2022.
- **Sriram Krishna** and Nishant Sinha. [Gestop: Customizable Gesture Control of Computer Systems](#). In *8th ACM IKDD CODS and 26th COMAD*, pages 405–409. ACM, 2021.
- **Sriram Krishna**, Siddarth Vinay, and KS Srinivas. [Searching a Raw Video Database using Natural Language Queries](#). In *2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)*, pages 1–6. IEEE, 2021.
- **Sriram Krishna** and Niharika Pentapati. [Genetic Bi-objective Optimization Approach to Habitability Score](#). In *International Conference on Modeling, Machine Learning and Astronomy*, pages 144–157. Springer, 2019.

Skills

Programming Languages	Python, C++, C, Java
Relevant Coursework	Robot Learning, Advanced Computer Vision, Learning for 3D Vision Probabilistic Graphical Models, Physics-Based Rendering
Tools and Frameworks	PyTorch, Mujoco, LeRobot, IsaacGym, OpenCV, Docker, CMake, Kubernetes
Additional	Shell Scripting, Latex, Emacs Lisp