Sriram Krishna

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Education

PES University   *Bengaluru, Karnataka*
Bachelor of Technology in Computer Science and Engineering - **CS GPA: 9.17/10.0 || Overall GPA: 8.99/10.0**   *Aug 2017 - May 2021*

Experience

Samsung Research   *Bengaluru, Karnataka*
Software Engineer - Computer Vision   *Dec. 2021 - Present*
- **AR Vision Lab - Depth Estimation and 3D Scene Reconstruction** - Development of Spatial Understanding solution
- Utilized various ML techniques - self-supervised learning, knowledge distillation - and systematically evaluated their impact on model accuracy and efficiency. Optimised models for real-time on-device inference.
- Designed and developed **DeepSmooth**, a model which achieves SOTA results for temporal consistency in depth completion. Paper accepted at the VOCVALC workshop at CVPR 2023.
- Miscellaneous - Conducted interviews, mentored interns, maintained build system for team projects.

MIDAS-IIIT Delhi   *New Delhi, Delhi*
Research Assistant - Part Time   *Jun. 2021 - Jul. 2023*
- Improved reliability of Automated Scoring systems by bringing humans into the loop. Accepted at EAAI 2022, organized jointly with AAAI-22
- Explored viability of Topological Data Analysis (TDA) for modeling the coherence of natural language text.

Nextuple Inc.   *Bengaluru, Karnataka*
Software Engineer   *Jul. 2021 - Dec. 2021*
- Built Nextuple's Machine Learning Platform. Integrated the platform into existing infrastructure with best practices augmentations (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.

OffNote Labs   *Bengaluru, Karnataka*
Deep Learning Intern   *May. 2020 - Sep. 2020*
- 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.

Selected Publications

- **Krishna, Sriram** and Basavaraja Shanthappa Vandrotti. DeepSmooth: Efficient and Smooth Depth Completion. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition - VOCVALC Workshop*, 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.

Projects

nanoraytracer
- A recursive raytracer written from scratch in C++
- Supports shadows, reflections, specular/diffuse lighting and sphere/triangle primitives. Implemented in a modular and extensible manner following C++ best practices.

FrLove - Could a Frenchman rapidly identify Lovecraft?
- Exploration of cross-domain few-shot learning from a multilingual perspective. Experiments to validate whether the "distance" between different language families can be quantified in terms of their few-shot performance.
- **French→English** performance is weaker than **German→English**, which is expected since German and English belong to the Germanic family.