Krishnakant Singh

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Education

Department of Computer Science, TU Darmstadt — Darmstadt, Germany
Ph.D. in Computer Science — 2021-2026 *(expected)*
- Advisor: Prof. Stefan Roth
- Research area: Compositional generative modelling

Department of Computer Science, IIT Hyderabad — Hyderabad, India
M.Tech in Computer Science — 2015-2018
- GPA: 9.2/10.0, Rank: In Top-5/30

Department of Computer Science, IIIT Sambalpur — Sambalpur, India
B.Tech in Computer Science — 2011-2015
- GPA: 9.3/10.0, Rank: 1/38

Experience

Research Scientist | Rakuten, Japan — Nov, 2019-Feb, 2021
- Shipped complete the look recommendation for fashion items for Rakuten fashion.
- The model uses a BERT-like model by treating fashion recommendation problems as masked text modeling.

Research Engineer | Rakuten, Japan — Sep, 2018-Nov, 2019
- Shipped shoot-and-shop feature for real-world fashion images.
- Modified Mask R-CNN models for working on real-world noisy fashion images.

Summer Intern | MLPack, Google Summer of Code — Jun, 2017-Sep, 2017
- Developed and merged machine learning algorithms like Spike-Slab RBMs, RBMs, and GAN into MLPack library.
- The developed models beat efficiency benchmarks compared to the scikit-learn library.

Publications

1. **Krishnakant Singh**, Simone Schaub-Meyer, Stefan Roth. GLASS: Guided Latent Slot Diffusion for Object-Centric Learning. *CVPR, 2025*

2. **Krishnakant Singh**, Simone Schaub-Meyer, Stefan Roth. Is Synthetic Data All We Need? Benchmarking the Robustness of Models Trained with Synthetic Images. *CVPR SyntaGen Workshop, 2024*. Best Paper Award

3. **Krishnakant Singh**, Simone Schaub-Meyer, Stefan Roth. S^2-Flow Join semantic and style editing of facial images. *BMVC, 2022*.

4. K.J. Joseph, Vamshi Teja R., **Krishnakant Singh**, Vineeth N. Balasubramanian, Submodular Batch Selection for Training Deep Neural Networks. *IJCAI, 2019* and *ICML-Workshop, 2019*.

Awards and Honors

- **Best Paper Award**, SyntaGen Workshop, CVPR 2024.
- **Outstanding Reviewer Award**, ECCV 2024.
- **Academic Excellence Award**, Spark Fellowship.
- **Academic Scholarship**, IIT Hyderabad.

Skills

Languages: English, Hindi, German(Basic).

Programming: Python, C++, MATLAB.

ACADEMIC
SERVICES

Reviewer for: *ICCV 2023, ECCV 2024, NeurIPS 2024.*
Talks: *EuroPython 2020: Link.*