Rhea Sukthanker

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EDUCATION

MACHINE LEARNING LAB - UNI FREIBURG
Efficient and multi-objective Neural Architecture Search - Supervised by Prof. Dr. Frank Hutter
Feb 2022 - Now | Freiburg, DE

ETH ZURICH
Masters in Data Science
Sep 2018 - Jun 2021 | Zurich, CH
GPA: 5.39/6

VELLORE INSTITUTE OF TECHNOLOGY
Bachelors in Information Technology
July 2014- Jun 2018 |Vellore, India
GPA: 9.75/10

LINKS

LinkedIn: rheasukthanker
Github: @rheasukthanker
Google Scholar: //rheasukthanker

COURSEWORK

GRADUATE
- Advanced Machine Learning
- Big Data
- Computational Intelligence Lab
- Natural Language Understanding
- Data Science Lab
- Computer Vision
- Deep Learning
- Statistical Learning Theory
- Research in Data Science

SKILLS

PROGRAMMING
Over 5000 lines:
Java • Shell • Python • Pytorch • LaTeX• Tensorflow
Over 1000 lines:
C • C++ • CSS • PHP • JavaScript • Assembly
Familiar:
AWS • iOS • MySQL • Azure • MongoDB

RESEARCH

CVL ETH ZURICH | Student Researcher | Supervisors: Dr. Zhiwu Huang, Dr. Suryansh Kumar, Prof. Dr. Luc Van Gool
March. 2020 – April 2021| Zurich, CH [Code,Python]
- Proposed a novel Neural Architecture Search Problem for SPD Manifold Networks achieving upto 12% relative improvement in performance.
- Master thesis on Attention in Generative Models for Efficient Visual Super Resolution

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CIL NANYANG TECHNOLOGICAL UNIVERSITY | Research Assistant | Supervisor: Dr. Erik Cambria
May 2017-July 2017 and Jan 2018 – May 2018 | Singapore
- Published a first author review paper on Anaphora Resolution.
- Improved the accuracy of SOTA Coreference Resolution Models by upto 0.3% by commonsense knowledge induction

AWARDS

2018	State	Goa Scholars 2018-19
2018	International	ETH Zurich Excellence Scholarship

PUBLICATIONS/PREPRINTS

[1] S. Dooley, R. S. Sukthanker, J. P. Dickerson, C. White, F. Hutter, and M. Goldblum. Rethinking Bias Mitigation: Fairer Architectures Make for Fairer Face Recognition. In NeurIPS, 2023.

[2] S. Schrodi, D. Stoll, B. Ru, R. Sukthanker, T. Brox, and F. Hutter. Towards discovering neural architectures from scratch. NeurIPS, 2023.

[3] R. S. Sukthanker, Z. Huang, S. Kumar, E. G. Endsjo, Y. Wu, and L. Van Gool. Neural Architecture Search of SPD Manifold Networks. International Joint Conference on Artificial Intelligence, 2021.

[4] R. S. Sukthanker, B. Staffler, F. Hutter, and A. Klein. LLM Compression with Neural Architecture Search. In Workshop on Machine Learning and Compression, NeurIPS 2024, 2024.

[5] R. S. Sukthanker, A. Zela, B. Staffler, S. Dooley, J. Grabocka, and F. Hutter. Multi-objective Differentiable Neural Architecture Search. arXiv preprint arXiv:2402.18213, 2024.

[6] R. S. Sukthanker, A. Zela, B. Staffler, J. K. Franke, and F. Hutter. HW-GPT-Bench: Hardware-Aware Architecture Benchmark for Language Models. NeurIPS Datasets and Benchmarks Track, 2024.

[7] C. White, M. Safari, R. Sukthanker, B. Ru, T. Elsken, A. Zela, D. Dey, and F. Hutter. Neural architecture search: Insights from 1000 papers. arXiv preprint arXiv:2301.08727, 2023.

[8] Y. Wu, Z. Huang, S. Kumar, R. S. Sukthanker, R. Timofte, and L. Van Gool. Trilevel Neural Architecture Search for Efficient Single Image Super-Resolution. CVPR NAS Workshop 2022, 2022.