

SHRAVAN NAYAK

PERSONAL DATA

EMAIL: shravannayak.p@gmail.com
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GOOGLE SCHOLAR: <https://scholar.google.com/citations?user=vT4f678AAAAJ>

EDUCATION

SEP 2023 | Master's in COMPUTER SCIENCE (THESIS)
- CURRENT | University of Montreal, Montreal, GPA: 4.3/4.3
Advisor: Prof. Aishwarya Agrawal

JULY 2017 | Bachelor's in ELECTRONICS ENGINEERING
- MAY 2021 | IIT (BHU) Varanasi, Varanasi, GPA: 9.41/10
Head of Programmers Club, Department Football team

WORK EXPERIENCE

SEP 2023 | Graduate Research Assistant at MILA, Montreal
- CURRENT | ADVISOR: [Prof. Aishwarya Agrawal](#)
Developing vision language systems and datasets that transcend linguistic barriers to cater to diverse demographics and cultures.

SEP 2021 | Research Intern at UNIVERSITY OF TORONTO, Toronto
- MAR 2023 | ADVISORS: [Prof. En Shiun Annie Lee](#), [Prof. Surangika Ranathunga](#)
Conducted extensive analysis of the translation capabilities of LLMs for low-resource languages.

JUL 2021 | Software Engineer II at MICROSOFT, Hyderabad
- AUG 2023 | Part of the PowerPoint Mobile team
Played a key role in crafting user experiences, developing features like background customization, text highlighting and online video insertion.

MAY 2020 | Research Intern at UNIVERSITY OF HAMBURG, Hamburg
- DEC 2022 | ADVISORS: [Prof. Timo Baumann](#), [Prof. Chris Beermann](#),
Worked on audio-visual translation a.k.a. dubbing, with a focus on dataset creation, machine translation, speech synthesis and evaluation of dubbing systems.

MAY 2019 | Research Intern at INDIAN INSTITUTE OF SCIENCE, Bangalore
- DEC 2019 | ADVISORS: [Prof. Shalabh Bhatnagar](#), [Prof. Raghuram Bharadwaj](#)
Developed a stochastic game framework, leveraging a novel DQN approach in addressing supply-demand management in multi-microgrid networks.

SELECTED PUBLICATIONS

Refereed | [LEVERAGING AUXILIARY DOMAIN PARALLEL DATA IN INTERMEDIATE TASK](#)
Papers | [FINE-TUNING FOR LOW-RESOURCE TRANSLATION](#)
[Shravan Nayak](#), Surangika Ranathunga, Sarubi Thillainathan, Rikki Hung, Anthony Rinaldi, Yining Wang, Jonah Mackey, Andrew Ho, En-Shiun Annie Lee.
Practical Machine Learning for Developing Countries (PML4DC) workshop, ICLR 2023.

[A DEEP DIVE INTO NEURAL SYNCHRONY EVALUATION FOR AUDIO-VISUAL](#)
[TRANSLATION](#)
[Shravan Nayak](#), Christian Schuler, Debjoy Saha, Timo Baumann.
Proceedings of the 2022 International Conference on Multimodal Interaction, ICMI 2022.

PRE-TRAINED MULTILINGUAL SEQUENCE-TO-SEQUENCE MODELS: A HOPE FOR LOW-RESOURCE LANGUAGE TRANSLATION?

En-Shiun Annie Lee, Sarubi Thillainathan, **Shravan Nayak**, Surangika Ranathunga, David Ifeoluwa Adelani, Ruisi Su, Arya D. McCarthy.

Findings of the Association for Computational Linguistics, ACL 2022.

MERKEL PODCAST CORPUS: A MULTIMODAL DATASET COMPILED FROM 16 YEARS OF ANGELA MERKEL'S WEEKLY VIDEO PODCASTS

Debjoy Saha, **Shravan Nayak**, Timo Baumann.

Language Resources and Evaluation Conference, LREC 2022.

THE TWO SHADES OF DUBBING IN NEURAL MACHINE TRANSLATION

Alina Karakanta, Supratik Bhattacharya, **Shravan Nayak**, Timo Baumann, Matteo Negri, Marco Turchi.

Proceedings of the 28th International Conference on Computational Linguistics, COLING 2020.

SEE ME SPEAKING? DIFFERENTIATING ON WHETHER WORDS ARE SPOKEN ON SCREEN OR OFF TO OPTIMIZE MACHINE DUBBING

Shravan Nayak, Timo Baumann, Supratik Bhattacharya, Alina Karakanta, Matteo Negri, Marco Turchi.

Deep Video Understanding Workshop, ICMI 2020.

PROJECTS

SEP 2023 - PRESENT	Vision Language Models for Everyone - Collecting a web-scale collection of culturally significant image-text pairs from diverse global regions and building a geo-diverse Visual Question Answering benchmark. - Building culturally aware vision language models by adapting existing western-centric models to varied cultures and regions.
SEP 2021 - MAR 2023	Machine Translation for low resource languages [Github] - Conducted an extensive analysis of mBART's and mT5's translation performance on eight diverse low-resource languages. - Executed large scale empirical tests using LLMs to identify the best fine-tuning and pre-training methods for domain adaptation for low-resource language translation.
MAR 2021 - OCT 2021	Merkel Podcast Corpus [Github] - Curated single-speaker German audio-video-text corpus from Angela Merkel's podcasts. - Developed video aware text-to-speech systems for lip-synchronous speech generation.
MAY 2019 - DEC 2022	Dubbing [GitHub] - Investigated machine translation systems in the context of Dubbing. - Evaluated SyncNet scores' aptness as an audio-visual synchrony metric for dubbing systems and analyzed its correlation with human judgments.

AWARDS

2023	Mila Scholarship (Providing full tuition coverage and stipend of 27000 CAD)
2023	UdeM exemption scholarship (10347 CAD)
2020	DAAD WISE Scholarship (3633 Euro)
2019	Indian Academy of Sciences, Summer Research Fellowship (25000 INR)

INVITED TALKS

MAY 2023	Demystifying LLMs, IIT (BHU) VARANASI
NOV 2022	Pre-Trained Multilingual Sequence-to-Sequence Models for NMT: Tips, Tricks and Challenges , TORONTO MACHINE LEARNING SUMMIT
AUG 2021	Research Scholarships for Undergrads , COMPUTER VISION TALKS