

Gaurav Bhatt

Curriculum Vitae

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🔄 [GauravBh1010tt](https://github.com/GauravBh1010tt)

Work

- 2024 **Research Fellow**, *Internship*, Amazon Science, Palo Alto, United States
Project Solving ranking-as-optimization problem through preference optimization
Supervisors Holakou Rahmanian, Kiran Thekumparampil, and Tanmay Gangwani
- 2022– **Student Researcher**, The Vector Institute for AI, Toronto, Canada
Projects Technical facilitator for the FastLane program, RAG boot camps, and BIAS in AI workshop
- 2018–2019 **Research Scientist**, Descript-AI
Project Audio denoising, enhancement, and tagging using deep generative models.

Education

- 2021– **PhD, Computer Science**, University of British Columbia, Vancouver, Canada
Advisor Dr Leonid Sigal
Project Concept and Part-based Learning, Continual Learning, Bias and Fairness for LLMs and T2I models.
- 2019–2021 **Research Assistant**, Indian Institute of Technology Hyderabad, Hyderabad
Advisor Dr Vineeth Balasubramanian
Project Domain translation, zero-shot learning using adversarial and latent variable models.
- 2015–2018 **MTech, Computer Science**, Indian Institute of Technology Roorkee, Roorkee
CGPA - 9.2/10 (First Division with Distinction)
Thesis Text-based question answering system (Deep learning for QA)

Interests and Skills

Deep learning, machine learning, computer vision, NLP, data sciences, bias and fairness in LLMs and GenAI

Honors

- 2024 **Serving as a reviewer for ECCV'24, CVPR'24 and Pattern Recognition**
- July. 2024 **Gave a talk on Understanding Biases in Generative Models**, *RAG Bootcamp*, Vector Institute, Toronto, Canada
- Dec. 2023 **Presented our research paper at NeurIPS'23, New Orleans, USA**
- Dec. 2023 **Presented our research paper at BMVC'23, Aberdeen, UK**
- May. 2018 **Top open-source ML, DL, NLP contributor (by mybridge) - Rank 3 out of 250 open-source repositories**
- Nov. 2017 **Travel grant from State Government for paper presentation in ACPR - 40,000 Rupees**
- Dec. 2015 **Travel grant from ACM-SIGIR for paper presentation in FIRE - 15,000 Rupees**
- Aug. 2015 **MHRD graduate student assistance-ship at IIT Roorkee - 1,44,000 Rupees per year**
- March. 2015 **Qualified GATE exam in Computer Science (All India Rank - 204 out of 1,15,000)**
- Aug. 2013 **Best student technical presentation at SAE INDIA NIS student convention - 5,000 Rupees**

Open-source Contribution

- 2018–2020 **DL-Seq2Seq**

This repository consists of Pytorch implementation of papers on sequence-to-sequence and bayesian learning. Currently, the implementations includes sketch generation, variational autoencoders, scheduled sampling, handwriting synthesis, neural machine translation and handwriting generation.

Github: <https://github.com/GauravBh1010tt/DL-Seq2Seq>

2016–2020 **DeepLearn**

This repository contains Tensorflow/Keras implementation of research papers on NLP, CV, ML, and deep learning. The topics includes ranking based question-answer retrieval, multi-modal deep models, attentive models for computing contextual sentence similarity, fake news stance detection, acousitce scene recognition, etc. Currently, DeepLearn has implementations of 15+ research papers.

Github: <https://github.com/GauravBh1010tt/DeepLearn>

Publications

Web Link <https://scholar.google.co.in/citations?user=PcmMT-4AAAAAJ&hl=en>

- 2024 **Bhatt, G., Ross, J., and Sigal, L., Preventing Catastrophic Forgetting through Memory Networks in Continuous Detection., *ECCV'24***
- 2024 **Chinchure, A*., Shukla, P*., Bhatt, G., Salji, K., Hosanagar, K., Sigal, L., and Turk, M., TIBET: Identifying and Evaluating Biases in Text-to-Image Generative Models., *ECCV'24***
- 2023 **Bhatt, G., Das, D., Sigal, L., and Balasubramanian, V.N., Mitigating the Effect of Incidental Correlations on Part-based Learning., *In NeurIPS'23***
- 2023 **Bhatt, G., Das, D., Sigal, L., and Balasubramanian, V.N., Weakly-supervised Spatially Grounded Concept Learner for Few-Shot Learning., *In BMVC'23***
- 2022 **Bhatt, G., and Balasubramanian, V.N., Learning Style Subspaces for Controllable Unpaired Domain Translation., *In WACV'23***
- 2020 **Bhatt, G., Chandok, C., and Balasubramanian, V.N., Learning from Anywhere: Rethinking Zero-Shot Learning with Limited Supervision., *In IJCAI'21***
- 2019 **Bhatt, G., Jha, P., and Raman, B., 2019. Representation Learning Using Step-based Deep Multi-Modal Autoencoders., *In Pattern Recognition, Elsevier'19***
- 2018 **Bhatt, G., Sharma, A., Sharma, S., Nagpal, A., Raman, B., and Mittal, A., 2018. Combining Neural, Statistical and External Features for Fake News Stance Identification., *In WWW'2018, Companion.***

Teaching Experience

2023- **Workshop for Canada Revenue Agency (CRA), Bias in AI (Vector Institute), TA**

Instructor Dr. Sayyed Nezhadi, University of Toronto

2023- **CPSC-425, Computer Vision and Deep Learning (UBC), Teaching Assistant**

Instructor Dr. Leonid Sigal

2021-2022 **CPSC-330, Applied Machine Learning (UBC), Teaching Assistant**

Instructor Dr. [Varada Kolhatkar (2021), Gulia Toti (2022), Mathias Lécuyer and Mehrdad Oveisi (2023)]

References

Dr. Leonid Sigal

Associate Professor, Computer science department, UBC, Vancouver, Canada

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Dr. V N Balasubramanian

Associate Professor, Computer science department, IIT-Hyderabad.

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