Gaurav Bhatt

Curriculum Vitae

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gauravbh1010tt.github.io
GauravBh1010tt

Education and Work

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.
2021– **Student Researcher**, The Vector Institute for AI, Toronto, Canada
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.
2018–2019 **Research Scientist**, Descript-AI
Project Audio denoising, enhancement, and tagging using deep generative 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

Deep learning, machine learning, computer vision, NLP, data sciences

Skills

Programming Languages **Python, Matlab, R, BASH**
Software Platforms **Pytorch, Keras, Tensorflow, Amazon AWS, Scikit-Learn**

Honors

Dec. 2023 **Presented our research paper at NeurIPS'23, New Orleans, United States of America**
Dec. 2023 **Presented our research paper at BMVC'23, Aberdeen, United Kingdom**
May. 2018 **Top open-source ML, DL, NLP contributer (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–present **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–present **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-4AAAAJ&hl=en`

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.**, *Under Review*

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), Dr. Gulia Toti (2022)

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.

Url `https://www.iith.ac.in/~vineethnb/`

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Dr. B Raman

Professor, Computer science department, IIT-Roorkee, India.

Url `http://faculty.iitr.ac.in/~balarfma/`

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