YASH JAIN

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bitshots

EDUCATION

Georgia Tech, ATL, USA
Masters of Science in Computer Science
GPA: 4.0 / 4.0 | Aug.2021-May.2023

IIT Bombay, India
B.Tech. Computer Science (With Honors)
GPA : 8.91 / 10 | Jul.2017-Jul.2021

KEY COURSEWORK

Graduate Courses:
ML with Limited Supervision
Machine Learning
Introduction to Graduate Algorithms

Undergraduate Courses:
Natural Language Processing
Organization of Web Information
Artificial Intelligence
Adv. Methods in Satellite Image Proc.
Machine Learning for Remote Sensing
Operating Systems
Data Structures and Algorithms

TECHNICAL SKILLS

Proficient-
• Python • C++ • Tensorflow • Pytorch
• Keras • MATLAB • SQL • GIT • LaTeX

Familiar-
• Java • Bash •Spark •MapReduce

AWARDS & FELLOWSHIPS

• Research Excellence Award for B.Tech Thesis Project, IITB CS, 2021

• Recipient of Dhirubai Ambani Scholarship for supporting my Master's studies at GaTech, 2021

• Summer Internship Fellowship, Aalto University, Finland (2021)

• All India Rank 29, JEE Advanced 2017

• Gold & Silver Medal representing India- IJSO, Argentina 2014

PUBLICATIONS

UbiComp'22 — ColloSSL: Collaborative Self-Supervised Learning for HAR
Yash Jain*, Chi Ian Tang*, Chulhong Min, Fahim Kawsar, Akhil Mathur

CIKM'21 — Integrating Transductive And Inductive Embeddings Improves Link Prediction Accuracy
Chitrank Gupta*, Yash Jain*, Abir De, Soumen Chakrabarti

ICML'21 — Group Supervised Learning: Extending Self-Supervised Learning to Multi-Device Settings
Yash Jain*, Chi Ian Tang*, Chulhong Min, Fahim Kawsar, Akhil Mathur
Workshop on Self-Supervised Learning for Reasoning and Perception

UbiComp'20 — RFID Tattoo: A wireless platform for speech recognition
Jingxian Wang, Chengfeng Pan, Haojian Jin, Vaibhav Singh, Yash Jain, Jason I. Hong, Carmel Majidi, Swarun Kumar
UbiComp 2020 Best Paper Award, U.S. Patent Pending
IJCAI 2021 Sister Conferences Best Papers

WORK EXPERIENCE

Present — Google Research, USA | Research collaboration | Dilip Krishnan
Integrating noisy information from supervised trained models with contrastive learning. Testing various approaches on ImageNet-100 and CIFAR-100 datasets.

May-Aug'21 — Nokia Bell Labs, UK | Research Intern | Dr. Akhil Mathur
Group Supervised Learning: Extending SSL to Multi-Device Settings
• Formulated a novel framework, Group Supervised Learning (GSL), which utilizes synchronous multi-device unsupervised data, extending the principles of contrastive learning to a group setting.
• Outperformed supervised and semi-supervised baselines by 15% in F-1 score in RealWorld dataset.

May-July'20 — Flipkart | Data Science Intern | Nikesh Garera & Nithish Pai
Automated E-commerce Question-Answering system
• Generated synthetic queries from a limited set of user query to increase the dataset size by more than 30%.
• Combined BERT and GPT-2 models for developing a target product-type classification system which would then prompt the text-generation model to answer user query in natural language

RESEARCH PROJECTS

Present — VS-CLR: View Selection for Contrastive Learning of Visual Representations — Prof. Judy Hoffman
• Utilizing multiple camera views as augmentations for contrastive learning by addressing the view selection problem during training.
• Outperformed SimCLR and SimSiam baselines on WildTrack dataset. Testing the approach on Domain Generalization task using datasets like DomainNet.

Aug-Dec'20 — Meta Self-learning with Noisy Student — Prof. Biplab Banerjee
• While training large networks using MAML is expensive, our proposed method allows for training of large student networks using few-shot pseudo labels which outperforms the teacher learnt using MAML in fewer epochs

Aug-Dec'19 — Adversarial Reprogramming of Neural Networks — Prof. Ajit Rajwade
• Reprogrammed ImageNet classification model ResNet50 on MNIST dataset to perform an adversarial task by finding a single constant learnable weight matrix, added to all test inputs.
• Achieved an accuracy of 80% without training the weights of the ResNet encoder