

# YASH JAIN



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jinga-lala



yash-jain



bitshots

## EDUCATION

Georgia Tech, ATL, USA  
Masters of Science in Computer Science  
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 •  $\text{\LaTeX}$

### Familiar-

• Java • Bash • Spark • MapReduce

## AWARDS & FELLOWSHIPS

Research Excellence Award for B.Tech Thesis Project, IIT Bombay CS, 2021

Summer Internship Fellowship, Aalto University, Finland (2021) & Carnegie Mellon University, USA (2019)

All India Rank 29, JEE Advanced 2017

All India Rank 8, KVPY Fellowship- Dept. of Science & Technology, Govt. of India, 2016

Gold & Silver Medal representing India- IJSO, Argentina 2014

## PUBLICATIONS

- Submitted Group Supervised Learning for Human Activity Recognition  
Yash Jain\*, Chi Ian Tang\*, Chulhong Min, Fahim Kawsar, Akhil Mathur
- CIKM'21 Integrating Transductive And Inductive Embeddings  
Improves Link Prediction Accuracy  
Chitrang 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

- May-Aug'21 Nokia Bell Labs, UK | Research Intern  
*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 0.15 in F-1 score in RealWorld dataset.
- May-July'20 Flipkart | Data Science Intern  
*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
- May-Jul'19 CMU, USA | Research Intern | Prof. Swarun Kumar (PhD MIT)  
*RFID Tattoo: A wireless platform for speech recognition*  
· Speech recognition platform for voice impairments through wafer-thin, battery-free and stretchable RFID Tattoo.  
· Collected own sensor data and implemented Random Forest model calibrated on the stretch of tags to achieve state of the art 86% accuracy on a vocabulary size of 100 most common English words

## RESEARCH PROJECTS

- Present Generating virtual IMU data for effective activity recognition systems with a focus on eating Prof. Thomas Ploetz  
Working on improving IMUTube for developing a DL based food-monitoring system using smartwatch data
- Present Group contrastive learning with noisy labels Prof. Judy Hoffman  
Integrating the ideas of group contrastive learning with noisy labels for downstream object recognition tasks
- Dec-Apr'21 Integrating Transductive And Inductive Embeddings Improves Link Prediction Accuracy Prof. Soumen Chakrabarti & Prof. Abir De  
Provided alternative to node features in Online Social Network (OSN) graphs using transductive embeddings, protecting user privacy while improving link prediction performance in GNNs
- 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