Yash Bhalgat

+1 928-409-6998 ◇ Email: *yashbhalgat95@gmail.com* • *yashsb@umich.edu*

Github: *github.com/yashbhalgat* ◇ LinkedIn: *yashbhalgat* ◇ Webpage: *yashbhalgat.github.io*

EDUCATION

University of Michigan, Ann Arbor, MI **Dec '18 (expected)**
Masters, Computer Science and Engineering, **GPA**: 3.89/4.0

Indian Institute of Technology, Bombay, **2013-2017**
B.Tech. with *Honors* in EE and *Minor* in Computer Science, **GPA**: 9.44/10.0

SKILLS

Languages Python, C++, MATLAB, Java, Verilog, R, Bash, Julia (basic)
Packages PyTorch, OpenAI gym, Keras, TensorFlow, OpenCV, CUDA, python-flask, git

WORK EXPERIENCE

IBM Almaden Research Center, *Mentor - Zhe Liu* *[Summer '18]*
Classification in the presence of label noise in training data
Built deep learning and ensemble frameworks to integrate weakly-labelled and high-quality training samples.

VISION AND LEARNING LAB, Univeristy of Michigan *[Fall '17]*
Human Pose Estimation and Tracking, *Guide: Prof. Jia Deng*
Developed a PyTorch framework for a Stacked Hourglass network + BiLSTM model for human pose estimation.

IBM RESEARCH, Bangalore, *Mentor - Vikas Raykar* *[Summer '16]*
Joint multi-modal representations for e-commerce catalog search by visual attributes
Built autoencoder CorrNets in Tensorflow for fast search on large fashion catalogues without manual tagging.

TATA RESEARCH DESIGN AND DEVELOPMENT CENTER, Pune *[Dec '15]*
Object recognition in document images with semisupervised deep learning [arXiv]
Work accepted in DAS conference. Stamp etection accuracy 94% and segmentation IoU 74.81%.

INFURNIA, Mumbai *[Summer '15]*
Software module development using CAD modelling engine
Created a range of linear programming solvers by modifying functions in FreeCAD in Python and C++.

FOCUS ANALYTICS, Mumbai *[Dec '14]*
Indoor Navigation System - Pedometry
Developed a pedometry-based indoor navigation Android application accurate to 1-1.5 meters.

RELEVANT COURSES

Machine Learning, Advanced Computer Vision, Reinforcement Learning, Probability & Random Processes, Parallel Computing, Computational Data Science, Design & Analysis of Algorithms, Microarchitecture

KEY COURSE PROJECTS

- **Convolutional Neural Network from scratch**, Advanced Computer Vision [github]
- **Exploring machine-learning ranking systems on the Yelp dataset**, Information Retrieval
- **Sarcasm detection in sentences**, Machine Learning (CS 725) [github]
- **Segmentation of MRI images using Expectation Maximization**, Estimation and Identification
- **Computer Vision and Image Processing algorithms acceleration with CUDA**, High Performance Scientific Computing [github]
- **Emotion from Speech extraction (CNNs, HMMs)**, DSP Poster presentation [github]