Ishan Bhatnagar

1101 S Racine Avenue 2R, Chicago, IL 60607 | (773) 580-9474 | ishanb98@gmail.com
| https://www.linkedin.com/in/ishan-bhatnagar/ | https://github.com/ishanb97

SUMMARY

A clear thinking and analytical Computer Science graduate student, fascinated by algorithms, machine learning, deep learning and keen on learning new technology and applying them to practical situations.

EDUCATION

University of Illinois at Chicago (UIC) - Chicago, IL — May 2021 (Expected)
Master of Science in Computer Science — GPA: 3.66/4.0

Mumbai University (MU) - Mumbai, India — May 2019
Bachelor of Engineering in Information Technology Engineering

TECHNICAL SKILLS

Languages/Libraries/Tools: Java, python (TensorFlow, keras, NumPy, pytorch, pandas, OpenCV, nltk, scikit-learn), C, C++, C#, SQL, NoSQL, MATLAB, octave, R, git, latex, Julia, Angular, Node, React, JavaScript, jQuery, php, Hadoop, bash, Drupal, Ruby, AWS, Azure, GCP, Docker.

PROFESSIONAL EXPERIENCE

University of Illinois - Chicago, USA September. 2020 – Present *Graduate Research and Teaching Assistant*

- Assisted in the development of a novel 3D Generative Computer Vision algorithm to increase manufacturing design automation using triangular meshes with meshCNN. Also, responsible for guiding and evaluating a batch of more than 30 students for the course IE 542 Advanced Computational methods for Product and Process Design.

Decimal Point Analytics - Mumbai, India June. 2018 – July. 2018 *Trainee*

- Completed the machine learning(NLP) project Creditpulse which classifies companies which might be bankrupt in the near future using text analysis by modifying built in packages and using the "tf-idf" algorithm for feature extraction and regression tree algorithm for the classification. The project was written in Julia language.

Tata Consultancy Services - Mumbai, India June. 2017 – August. 2017 *Intern*

- Developed features using the CMS "Drupal" for Molar bear, a Business to Business dental supplies site. I used Browser Stack and Mantis tools to track and report bugs to the agile development team. I participated in defect tracking and resolution discussions with the development team, repaired them.

PROJECTS

Classical music generation using Transformer model — Spring 2020

- Built a music generation system for generating classical piano music notewise using the DistilBERT Transformer model and compared it to a Bi-LSTM, attention, seq2seq models over the Mozart dataset which was encoded as midi files.

Invariant Representation Learning for Adversarial Image classification — Fall 2019

- Made a novel model for robust image classification using a β-Variational Auto-Encoder and a modified loss function with Invariant risk management which increases accuracy for adversarial data.

Speech Recognition, summarization & sentiment analysis — Spring 2019

- Designed an end to end application with a GUI for speech recognition using "CMU sphinx" which uses Hidden Markov models, latent semantic analysis for text summarization and used LSTM via keras for sentiment analysis and deployed it using AWS Sagemaker.

Handwritten digit creation using Generative adversarial network — Fall 2018

- Generated handwritten digits using TensorFlow framework in python and TensorFlow with keras for the standard computer vision MNIST dataset and generated the digits using the generator-discriminator architecture, cross entropy loss functions and leaky "Relu" units.

ACCOLADES

- Placed in top 40 in IIT Kharagpur Coding contest amongst hundreds of participants-Leaderboard (Contest).
- Completed Deep Learning, a 5-course specialization by deeplearning.ai by Coursera taught by Professor Andrew Ng.
- Completed edX machine learning certification by Columbia University- Certification.
- Maiden publication accepted in IEEE International Conference on Signal and Image Processing Applications 2019 at Kuala Lumpur; a pre-print is available.