

# Ishan Bhatnagar

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## 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  
*Master of Science in Computer Science*

May 2021 (Expected)

**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, Docker.

## INTERSHIP EXPERIENCE

**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

**Frozen Lake using Q learning**

Fall 2019

- Built a reinforcement learning model for playing the frozen lake game using the openAI gym library and used Q-learning, a type of reinforcement learning to train the agent to play the game in the stochastic environment.

**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.

**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.

**Object classification using Convolutional neural networks**

Fall 2018

- Made a 6 layered CNN using “Keras” framework in python for the computer vision CIFAR-10 dataset for classifying 10 different objects apart with 90% accuracy using data augmentation, data regularization, batch normalization and stochastic gradient descent.

## 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.