

# Ishank Sharma

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## EDUCATION

### **MS in Electrical & Computer Engineering,**

Sep 2017-May 2019

Rutgers University, New Brunswick, New Jersey, GPA: 3.2/4.0

### **B.Tech in Electronics & Communication Engineering,**

Sep 2012-July 2016

USICT, G.G.S Indraprastha University, Delhi, GPA: 70.21/100 (First Division), GPA: 3.59/4.0

## SKILLS

**Languages:** Java, C/C++, Python, Scala, MATLAB

**CI/CD Tools:** Jenkins, Ansible, Terraform, Travis CI, Docker, Kubernetes, Molecule, PyTest

**Cloud Technologies:** Hadoop, Spark, Openstack, VMWare, Kafka, AWS(EC2,S3,RDS),

**Machine learning:** R, Keras, Tensorflow, PyTorch, OpenCV, Spacy, Tensorflow Mobile

**Databases:** MySQL, SQL Server, PostgreSQL, Redis, Neo4j, MonogDB

## WORK EXPERIENCE

### **Cloud Infrastructure Engineer, State Street Corp., TX**

Aug-Sep 2019

- Developed CI/CD pipeline to provide Cloud Infrastructure as a Service. Worked with underlay team to develop automated testing environment for cloud service controller components.
- Developed RESTful APIs for OpenStack Horizon, Swift and Nova service offerings.

### **Data Science Co-op, State Street Corp., NY**

July 2018-April 2019

- Combined natural language processing, deep neural networks and financial risk models to find connections between global news, risk events and multi asset portfolios streams for investment decision support. I worked on tasks ranging from topic modeling, unsupervised contextual clustering, knowledge based entity linking, ARIMA-LSTM financial time series analysis.
- Developed RESTful APIs and interactive dashboards for continuous delivery of deployed machine learning models.

### **Software Engineer, Intutent Inc., CA**

March-May 2017

- Created ETL infrastructure for BigData based services with Python, Java, SQL, MongoDB, Redis, Django and SparkML.
- Developed deep neural network based QA chatbots to automate job interview sessions.

### **Research Associate, Indraprastha Institute of Information Technology, Delhi**

July 2016-Feb 2017

- Responsible for developing natural sounding speech synthesis system using hindi transcribed texts. I used RNN for duration/acoustic modeling and WORLD vocoder for waveform synthesis.
- Worked with vision team to design pedestrian detection system for an autonomous driving vehicle using convolutional neural networks.

## KEY PROJECTS

### **Unsupervised Segmentation of Food Images**

Fall 2018

- Developed an android application that allows users to take picture of the targeted dish and then recognizes the dish from our multi cuisine database of food items. We trained the network on 139400 food dish images and 357 food categories and obtained Validation Top-1 accuracy of 44.1% and Test Top-1 accuracy of 43.7%.
- Implemented Region proposal Networks, Pyramid feature parsing and W-Net architecture for unsupervised instance segmentation of food items from image.

### **Distributed Computing for Machine Learning**

Fall 2017

- Built machine learning models for network intrusion detection and object image classification on a distributed platform using Hadoop, Spark, SQL, Kafka, Scala, Java, MLlib. Presented tutorials in ECE579 course; topics included applications of MapReduce and Hive/SQL datawarehousing.

### **Statistical Learning and Modeling**

Fall 2017

- Developed Rscripts for smoothing splines, linear mixed-effect models, generalized linear mixed models and optimization algorithms- Gradient Descent, Stochastic Approximation, Expectation Maximization for GMM as part of Statistical Learning course.

## ACTIVITIES

- Graduate Teaching Assistant, ECE 562: Applied AI from Concept to Market, Spring 2019, Rutgers University.
- Graduate Teaching Assistant, ECE 579: Cloud Computing, Fall 2017, Rutgers University.