Ishank Sharma

+1-8483914784 | ishank.sharma@rutgers.edu | **Linkedin**:// ishnk | **Website**://ishank26.github.io

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(GGSIPU), Delhi, GPA: 70.21/100 (First Division), WES GPA: 3.59/4.0

SKILLS

Languages: Java, C/C++, Python, Scala, MATLAB
Software & Tools: Hadoop, Spark, Kafka, AWS(EC2,S3,RDS), R, Keras, Tensorflow, PyTorch, OpenCV, Menpo, Docker, Jenkins
Databases: MySQL, SQL Server, PostgreSQL, Redis, Neo4j, MonogDB

WORK EXPERIENCE

Data Science Co-op, State Street Corp., NY — July 2018–Present

- Developed deep neural models utilizing financial metrics to filter and score news streams for portfolio risk assessment.
- Utilized knowledge graphs, contextual embeddings and risk models to find connections between global news, risk events and multi asset portfolios for Investment Decision Support. Optimized ETL pipeline for scalability and fast inference.

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 learning based microservices to automate job interview sessions.

Research Associate, Indraprastha Institute of Information Technology, Delhi — July 2016–Feb 2017

- Responsible for developing a natural sounding speech synthesis system using transcribed texts. Implemented an user interactive system using RNN for duration/acoustic modeling and WORLD vocoder for waveform synthesis.
- Worked with a team to design vision module for an autonomous driving vehicle using convolutional neural networks and object tracking algorithms.

KEY PROJECTS

Using News and Supply Chain Data to Predict Stock Price Movements — Spring 2019

MS Thesis: Dr. Maria Striki

- Developing limit order based trading strategy with unsupervised news clustering, knowledge graphs and ARIMA-LSTM financial time series forecasting.

Unsupervised Segmentation of Food Images — Fall 2018

- Developed Convolutional Neural Networks for unsupervised instance segmentation of multiple cuisines food items.
- Implemented Region proposal Networks, Pyramid feature parsing and W-Net architecture for improved localization of segmentation mask.

Distributed Computing for Machine Learning — Fall 2017

- Developed machine learning models for network intrusion detection and object image classification on a distributed system 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

- Parametric and non-parametric modeling using 2006 ASA Ozone and Prater's Petrol Refinery datasets.
- Developed R scripts for smoothing splines, linear mixed-effect models, generalized linear mixed models and optimization algorithms-Gradient Descent, Stochastic Approximation, Expectation Maximization for GMM.

Representing Contextual Relations in Ancient Sanskrit Texts — Sep–Nov 2016

- Proposed and implemented an algorithm to parse/represent vector embedding of Devanagari words in ancient Sanskrit literature-Ramayana, Vedas, etc. Obtained word vectors for 39940 most frequent words.
- Proposed Bidirectional LSTM architecture with residual skip connections to learn and predict complex relationships in Sanskrit Devanagari texts.

ACTIVITIES

- Graduate Teaching Assistant, ECE 579: Cloud Computing, Fall 2017, Rutgers University
- Android application featured in community applications section of Open Govt. Data Platform India. Winner Top5 apps category in "Blackberry 10 Apps Challenge 2013" by Devworx, Digit.