Ishank Sharma

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EDUCATION

MS in **Electrical & Computer Engineering** (focus on Machine Learning) Sep 2017-May 2019
Rutgers University, New Brunswick, New Jersey, GPA: 3.2/4.0

B.Tech in **Electrical & Communication Engineering**, Sep 2012-July 2016
USICT, G.G.S Indraprastha University, Delhi, GPA: 3.59/4.0

SKILLS

Languages: Python, Java, MATLAB, C++, Javascript (Native, React), Scala
Cloud Technologies: AWS- Elastic beanstalk, Sagemaker, S3, Lambda, Step functions, Spark, Kafka, Openstack
Machine learning: Keras, Tensorflow, PyTorch, Spacy, Pandas, HuggingFace, SparkML
CI/CD Tools: Docker, Kubernetes, Molecule, Jenkins, Gitlab Runner, Prometheus, PyTest, Terraform
Databases: MonogDB, MySQL, SQL Server, PostgreSQL, PostGIS, Redis, Neo4j

WORK EXPERIENCE

AI Solution Architect, CYR3CON Inc., AZ
March 2021–Present

- Led development of NLP infrastructure and products for predicting/recognizing exploits, vulnerabilities, attack patterns.
- Lead improving data and prediction pipeline for 5X faster running performance and increased request serving capacity by 60%.
- Designed and developed systems for automated CICD and performance evaluation, presenting to directors and C-levels regularly. Managing 4 other data scientists, analysts and reporting to the CTO.

Software Engineer, Verizon, NJ
Nov 2019–Aug 2020

- Developed rapid prototypes to provide proof-of-concept for validating new approaches for 5G network planning in United States.
- Built deep learning pipelines and software systems to generate/analyze 5G coverage maps and Radio Frequency Distribution System using PostGIS, SQL, AWS compute, GoJS, Java applications.

Cloud Infrastructure Engineer, State Street Corp., TX
Aug 2019–Nov 2019

- Developed CI/CD pipeline to provide Cloud Infrastructure as a Service. Worked with underlay team to develop automated deployment and testing solutions for cloud service controller components.
- Responsible for maintaining/monitoring deployed cloud compute and storage instances using Ansible, Terraform, Python Molecule, Jenkins, Openstack Horizon.

Data Science Co-op, State Street Corp., NY
July 2018–April 2019

- Combined natural language processing, deep neural networks and financial models to find connections between global news, risk events and multi asset portfolios streams for investment decision support. Developed microservices/interactive dashboards for visualization and analysis of deployed machine learning models.

KEY PROJECTS

Hit Song Prediction using Audio and Lyrics (MS Dissertation)
Spring 2019-Present

- Built deep learning models with acoustic and linguistic features for Top-100 billboard hit song prediction. Compared model performance w/wo feature aggregation layer of high and low level features. Achieved 72.6% classification accuracy score.

Portfolio Optimization with Linear and Fixed Transaction Costs
Spring 2019

- Developed optimal portfolio selection algorithm maximizing the returns over a period of time with linear and fixed transaction costs, constraints on exposure to risk, short-sell constraints etc. This project was my submission for Convex Optimization course.

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. 39400 images and 357 food categories and obtained Top-1 Validation accuracy of 44.1% and Top-1 Test accuracy of 43.7%.

Distributed Computing for Machine Learning
Fall 2017

- Built machine learning models 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.

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.