

# Arushi Sharma

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## SUMMARY

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A passionate data science professional, with over 5 years of industry experience working in financial, telecom and technology domains, with an aim to drive optimal decision making for real-world business problems

## EDUCATION

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- **Masters (MS in Data Science)**; Northeastern University, Boston, MA *Expected – Dec, 2021*  
*Relevant Courses:* Algorithms, Linear Algebra and Probability, Information Retrieval, Machine Learning
- **Bachelors (B.Tech in Computer Science)**; Rajasthan Technical University, India, **Honours** *May, 2012*  
*Relevant Courses:* Data mining and Warehousing, Distributed Systems, Statistics and Probability Theory

## TECHNICAL SKILLS

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- **Programming:** Python, Shell, SQL, R, Terraform, Numpy, Pandas, Scikit-Learn, SciPy
- **Technologies:** Hadoop, Spark, Kafka, Hive, Cloud (AWS), Docker, Elastic Search, PyTorch, Tensorflow
- **Machine Learning:** Regression (Linear, Logistic), Regularization, Decision Trees, Boosting, Bagging (Random Forest), SVM, Naive Bayes, PCA, CNN, RNN (LSTM), NLP

## ACADEMIC PROJECTS

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**Analysis of COVID-19 spread and Fatality prediction**(*R, SIR model, SVM, Random Forest, SVM One-class*)

- Predicted patient's fatality with 85% accuracy and performed data analysis, wrangling and visualization on COVID-19 cases across the world

**Document Ranking using IR models** (*Python, spacy, NLTK, Elastic Search, NLP, Machine Learning modeling*)

- Preprocessed, indexed and ranked documents against user queries and evaluated performance against vector-space, language and machine learning models, resulting in the improvement of average precision by 30%

**Names Classification using character-level LSTM model** (*PyTorch, LSTM, Scikit-learn, Numpy, Matplotlib*)

- Trained a character level LSTM model in Pytorch to predict the language of the names with 90% accuracy

**Image Classification using CNN** (*Python, Numpy, PyTorch, Tensorboard, Logistic Regression, CNN*)

- Created a classification model using Convolutional Neural Networks to classify objects with 70% accuracy

## PROFESSIONAL EXPERIENCE

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**Bridge2i Analytics Solutions, India - Senior Analytics Consultant** *Apr 2017 - May 2019*

**Bridge Funnel** (*Python, Docker, Terraform, AWS : S3, EC2, Elastic Beanstalk, ElastiCache, Lambda, Jenkins*)

- Optimized the creation of AI sales product cloud infrastructure, reducing the setup time by 60% using automation
- Containerized algorithms and configured Jenkins for continuous builds, reducing man power by 50 hours/week

**Image Analytics** (*Python, Kafka, Spark Streaming, Cassandra, Tensorflow, Docker, AWS*)

- Implemented an end to end object detection and classification usecase, ingesting live feed from webcam using Kafka
- Integrated algorithms with AWS, increasing scalability and cost efficiency while reducing the execution time by 30%

**Anomaly Detection** (*Python, PySpark, Spark Streaming, Cassandra, Kafka*)

- Designed and created data pipelines for anomaly detection by collecting data from various sensors
- Performed data cleaning and manipulation on sensor data, using it for real time monitoring of the anomalies

**Lead Engine (Intent Marketing)** (*Pyspark, AWS, DataBricks*)

- Optimized the code in PySpark to run on Spark 2.x version and improved the performance of Lead Engine, lowering the real-time execution by 75%
- Designed a level control framework in the application, controlling multiple execution points from a single program

**Accenture, India - Application Development Analyst** *Feb 2016 - Apr 2017*

**Data Architecture and Warehousing**(*Hortonworks, Diyotta, SQL, HDFS, Hive, Hue, Sqoop, Flume*)

- Generated business insights by creating data pipeline and consuming historical and incremental data from multiple sources to Hadoop data lake
- Achieved reduction in the operation cost by 35% by building automated pipelines and hive scripts using Diyotta

**IBM, India - Software Developer**

*Jan 2013 - Feb 2016*

**DCR Analysis** (*Cloudera, Hadoop, Hive, Sqoop, Oozie, Pig, SQL*)

- Developed hive scripts to generate insights from call center data, improving dropped call rate by 25%
- Improved query performance by 40% by using hive partitioning and bucketing after migrating data to HDFS
- Researched and implemented language translation module in Java, increasing revenue and client satisfaction
- Collaborated with key business stakeholders to understand requirements and led ideation sessions in the team

## ACHIEVEMENTS

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- **Certificate of Recognition, Bi2i** for mentoring analytics professionals in Big data, Pyspark and Cloud 2018
- **Managers Choice Award, IBM** for excelling in the practice of "Put the Client First" 2015
- **Orion Award Winner, IBM** for exemplary performance and exceptional dedication to IBM 2014
- **Outstanding Contributor Award, IBM** for excellent performance for the year 2013-2014 2014