

# Nikhil Sharma

## Business Analyst

Data science professional with 3 years of experience in the insurance industry across US markets. Successfully worked with clients in various projects which includes predictive modeling, data engineering, visualization, text analytics, and NLP

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## WORK EXPERIENCE

### Business Analyst EXL Services

11/2018 – Present

Gurgaon

Analytics

*Achievements/Tasks*

- **Transcription:** Developed scripts for transcription of English audio files into English text using AWS boto3 API.
- **Data preprocessing:** Developed python scripts for removing Stop words, punctuation, Unicode characters.
- **Exploratory Data Analysis:** Developed python scripts for visualization of frequency graphs, word clouds for Ngrams.
- **Named Entity Recognition:** Customized and fine-tuned Spacy NER model for Names, Address, and monetary info.
- **Masking PII Model:** Developed algorithms for masking personal information like Phone, DOB, email, Card details.
- **Parallel Processing:** Implemented parallel processing using minimize processing time and better utilization of CPU.
- **Modeling:** Applied topic modeling like LDA and fine tuning.
- **Sentence similarity:** Applied cosine similarity on BERT embedding to extract similar sentences from documents
- **Sentence Classification:** Developed and fine-tuned BERT model for sentence classification using Pytorch
- **Sentence Clustering:** Developed Model for clustering similar context based sentences using K-means algorithm.

*Keywords:* Python, NLP, BERT, LDA, NMF, Spacy, Transformers, pytorch, NER, Pandas, Gensim, Dask, seaborn, linux

### Programmer

#### Junati innovations Pvt Ltd

07/2017 – 11/2018

Delhi

*Achievements/Tasks*

- **Noise reduction in ECG signal** by applying Digital Signal Processing on ECG signal like Fast Fourier Transform, Digital Filtering methods using Python.
- **Applied Principal Component analysis** to reduce Noise without losing important information from ECG data.
- **Research and Implementation of Heart Rate Variability analysis** which used to calculate stress in the body.
- **Build Neural Network model** for detecting irregularities in ECG

*Keywords:* Python, digital signal processing, PCA, Neural Network

## EDUCATION

### B.tech

#### University of Delhi

06/2013 – 06/2017

Delhi

*Courses*

- Electronics Engineering

## TECHNICAL SKILLS

Python

Machine Learning

NLP

Text analytics

Deep learning

Digital Signal Processing

SQL

ElasticSearch

AWS

C

cortex

MATLAB

Linux

## ARTICLES/PUBLICATIONS

### NLP Based Information Retrieval System [↗](#)

*Article published by Towards Data Science*

### COVID-19 Open Research Dataset Challenge (CORD-19) [↗](#)

*Kaggle Competetion*

### Facial Key Points Detection using CNN [↗](#)

*Github*

Three-stage robust attendance recording and monitoring using social media platform, image processing and cloud computing [↗](#)

*Paper published by IEEE*

## PROJECTS UNDERTAKEN

Evaluation of prominent reasons for call loads at large US property and casualty insurer's customer contact center @EXL (06/2019 – Present)

- Assisted client to understand prominent reasons of call loads and provided suggestions in order to reduce calls

Claim duration prediction for large US health care insurer @EXL (09/2018 – 03/2019)

- Developed a predictive model using statistical modeling techniques like logistic or XGboost to predict the claim duration thus minimize overpayments
- Developed a risk analysis framework to quantify the dollar impact of the predictions.

Classification of arrhythmia (irregularities) using ECG data @Junati innovations Pvt Ltd (07/2017 – 03/2018)

- Developed prediction model for identifying two major arrhythmia like atrial fibrillation and ventricular fibrillation with accuracy of 80%

## CERTIFICATES

Certificate of Appreciation (11/2018 – 03/2019)

*Newcomer promising Award @EXL*

e-Yantra Robotics Competition (eYRC-2016)  
(09/2016 – 05/2017)

*IIT, BOMBAY*