

# PRAKAMYA MISHRA

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## ▪ EDUCATION

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B.Tech. in Computer Science & Engineering, <b>Shiv Nadar University</b> , UP, India.	CGPA: 8.41/10	Aug. 2016 - Jul. 2020
Class XII, CBSE, <b>Bharatiya Vidya Bhavan School</b> , GJ, India	Marks: 90.8%	Jun. 2014 - May 2016
Class X, CBSE, <b>Delhi Public School</b> , GJ, India	CGPA: 9.8/10	Jun. 2012 - May 2014

## ▪ WORK EXPERIENCE

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**Big Data Analytics Center, Shiv Nadar University, UP, India – Position: Research Assistant (NLP)** Present

- Research Topic: BDAC Project: Developing deep learning models for inferring economic trends by economic article summarization.

**IBM Research, Virtual – Position: Research Intern (NLP)** Jan. 2020 – Jun. 2020

- Research Topic: Bi-ISCA - Bachelors Thesis Project: Developed novel Bi-directional Inter-Sentence Contextual Attention mechanism (Bi-ISCA) to capture inter-sentence dependencies for detecting sarcasm. Explained model behaviors and predictions by analyzing the attention maps and identifying words responsible for invoking sarcasm. *Paper under review in EACL 2021.*

**Reliance Jio Infocomm Ltd., MH, India – Position: Big Data Intern** May 2018 – Jul. 2018

- Work Area: Apache Airflow: Integrated Apache Airflow for data workflow management and implemented the LSMR-PM data pipeline in the Jio big data ecosystem. Performed competitor analysis and tests based on security, performance, scalability, fault tolerance, and monitoring.

**Shiv Nadar University, UP, India – Position: Undergraduate Research and Teaching Assistant** Aug. 2017 – Dec. 2019

- STEPS-RL: Developed STEPS-RL, a novel spoken-word representation learning approach that uses speech and text entanglement for learning semantically, syntactically, and phonetically sound spoken-word representations by capturing acoustic & text-based contextual features. *Paper under review in EACL-2021.*
- Contextualized Spoken Word Representations using Convolutional Autoencoders [\[Link\]](#): Developed a convolutional autoencoder based neural architecture to model syntactically and semantically adequate contextualized representations of varying length spoken words.
- Road Network Mapping from Aerial Images [\[Link\]](#): Developed road network mapping framework using a random forest model for pixel-wise road segmentation followed by connected component analysis and hough lines method for network extraction from high-resolution aerial images. *Paper accepted in SPIE Optical Engineering + Applications-19.*
- Work Area: Learning & Academic Support Center (LASC): Tutored juniors and coordinated with the faculty.
- Courses: Discrete Mathematics, Data Structures, Object-Oriented Programming, Design & Analysis of Algorithms.

## ▪ PROJECTS AND ACTIVITIES

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**Yoogle** [\[Link\]](#) - Hack The North 3.0, University of Waterloo:

- Developed content-based YouTube video search engine web application that ranks and return videos that actually have contents requested in the search query.

**Automatic Trolley Human Follower** [\[Link\]](#) - Hack in The North 3.0, India:

- Developed affordable automatic trolley human follower for general and industrial use. Top 20 out of 200 teams at the Hackathon.

**Project M.A.R.S.** [\[Link\]](#) - Major course project:

- Developed music recommendation application using a logistic regression model trained on a dataset having 10000 Spotify songs. M.A.R.S is a JavaFX application having features to search songs by name/artist and plays the music video using YouTube API.

**Dell SNUHACK 2018** [\[Link\]](#) - Special Mentions:

- Developed a full-stack web application to improve the efficiency of reconciliation in the Dell warehousing ecosystem.

**Smart Bin** [\[Link\]](#) - Winner HackData 1.0, India:

- Developed a prototype smart bin that classifies waste into biodegradable and non-biodegradable using an image classification neural network model, Arduino servo motor, camera, and analytical website for waste segregation analysis using Firebase in the backend.

**AIMACODE** [\[Link\]](#) - Open Source Contributor:

- Developed web-based visualizations of the N-gram model, text classification model, and IR scoring function using JavaScript for the natural language processing chapter of the book: Artificial Intelligence a Modern Approach by Russel and Norvig.

## ▪ SKILLS

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**Technologies:** TensorFlow, Keras, Numpy, Pandas, Sklearn, Spark, Scala, Apache Airflow, Hive, Hadoop, Java, Python, C, JavaScript, Git, Shell, LATEX