PRAKAMYA MISHRA

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▪ EDUCATION

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

▪ WORK EXPERIENCE

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

· Research Topic: Bi-ISCA - Bachelors Thesis Project **[Link]**: 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.***

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 **[Link]**: 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 accepted in PAKDD 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): Gained 600+ hours of experience assisting faculty in tutoring students.

· Courses: Discrete Mathematics, Data Structures, Object-Oriented Programming, Design & Analysis of Algorithms.

▪ PROJECTS AND ACTIVITIES

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

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