

DHARA MUNGRA

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Bombora
New York, NY

Dear Hiring Manager:

I am a graduate student at NYU for an MS in Data Science. I am interested in the position of *Data Science Intern* at Bombora, which I found through a university career counselor. I understand that the *Data Science Intern* position requires experience in query processing languages, analytics skills, probabilistic and statistical modeling, and Machine Learning using software like Python along with strong written and oral communication skills, which I possess. During the course of my graduate and undergraduate studies and internships, I have got various opportunities to work on multiple projects and research papers which helped me develop these skills. This is why I think I would be a good fit for the role. I am excited to work at Bombora because of its fun-filled, trailblazing, and eccentric, yet deep technical culture in Analytics, Machine Learning, and NLP domains. By joining the company I'll be working with colleagues who are as excited and maybe as idiosyncratic as I am about to analyze B2B intent data and use NLP and ML modeling to predict topics against web content.

During my graduate studies at NYU, I have worked on projects like and “An Exploratory Analysis of India’s Foreign Trade” involving extensive data visualization and data collection and processing via web scraping. Further, I worked on the project “Helping DonorsChoose choose data-driven recommendations strategies” and applied NLP techniques such as Named Entity Recognition and Topic Modelling for extracting text-based features and clustering to handle missing values and categorical features. We then performed recommendations using content-based filtering and predictions from XG-Boost for the DonorsChoose.org data and attained AUC of 0.95 and MAP (mean average precision) score of 0.04. I have also worked on the recommender system “ Goodreads Book Recommendation System” and implemented Spark’s ALS (Alternating Least Squares) model and visualized book clusters using t-SNE which achieved a MAP (mean average precision) score of 0.062. Working on these projects helped me expand and improve my data visualization, data analysis, feature selection, and statistical modeling skills, and drastically expand my knowledge about ML algorithms- their working mechanism, implementation, optimization, and analysis of the result. Working on these projects also helped me gain in-depth knowledge about the working and implementation of recommender systems leveraging Apache Spark and working with large datasets.

I have worked as Junior Data Scientist at DS3 on a project “Understanding Cosmic Rays via Machine Learning” to analyze and preprocess signals generated by ultrahigh-energy cosmic rays (UHECRs) and design a neural network to predict Xmax value for the UHECRs using time series signals and stationery information about detectors to understand the origin of these rays. I have also been working on a project “Textual and sentiment analysis for trading” to apply NLP techniques like Named Entity Recognition and Entity based sentiment score to model how news impacts financial security returns and to deploy different trading strategies that rely on news-derived signals. As a Junior Data Scientist, I was required to have excellent communication skills, understanding of algorithms, excellence in the ML libraries, PyTorch, and Python tool kit, proficiency in data collection, analysis and preprocessing, knowledge of SQL, time series analysis and excellence in applied statistics. During my period at DS3, I applied these skills daily and performed exceptionally. Apart from academics, I have been actively involved in social and cultural activities. I have worked as a Senior Club Director at Rotaract Club of Nirma Institutes and organized several cultural events. I was also part of Yuva Unstoppable NGO for one and a half years where I worked as a leader to teach underprivileged students. I am also active in sports and hold a Black belt in martial arts. These experiences helped me develop and enhance my communication, management, team-work, and leadership skills.

The opportunity to work at Bombora would pave the way for me to harness the power of data to tackle real-world problems. I hope to be able to contribute my skills to this end. I look forward to the opportunity to discuss my qualifications in more detail via an interview. You may reach me at +1(929)-318-4487 or dam797@nyu.edu. Thank you for your time and consideration.

Sincerely,

Dhara Atul Mungra