# DISHA LAMBA

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## EDUCATION

**New York University, New York, NY**                                      **Sept 2021 - May 2023**
MSc Computer Engineering                                                                GPA: 3.5
Coursework: Machine Learning, Deep Learning, Big Data, Decision Models and Analytics, Network Security

**Bharati Vidyapeeth's College of Engineering, New Delhi, IN**              **Aug 2016 - Sept 2020**
Bachelor's of Technology Information Technology                                         GPA: 3.4

## TECHNICAL SKILLS

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|---|---|
| **Languages** | Python, R, C/C++, JavaScript, Git, Linux, HTML/CSS |
| **Packages and Libraries** | NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PyTorch, TensorFlow, Keras, dplyr, NLTK |
| **Tools & Frameworks** | React.js, Ruby on Rails, Tableau, MS Excel, AWS, GCP, Kanban |
| **Databases** | SQL, PostgreSQL, Hadoop, PySpark, DynamoDB |

## PROFESSIONAL EXPERIENCE

**New York University**                                                      New York, NY
**Course Assistant**                                                      Sept 2022 - Present
- Designated as Graduate Teaching Assistant for the Deep Learning Fall'22 and Computer Networking Spring'23 courses.
- Assisting more than 100 students with lectures, assignment queries via weekly office hours, in addition, to grading assignments.

**Data Glacier**                                                      New York, NY (Remote)
**Data Science Intern**                                                  June 2022 - Aug 2022
- Developed a search engine that ranks unstructured text documents based on semantic & contextual relationships to user prompts.
- Mined unstructured text data of 1M incidents in SQL server to generate Document-Term-Matrix with TF-IDF weights.
- Proposed and built an ensemble of BERT and TF-IDF, capturing 80% of escalations and achieving a MAP score of 80.3%.

**Sapio Analytics**                                                  Maharashtra, IN (Remote)
**Machine Learning Engineer**                                            July 2020 - June 2021
- Spearheaded the development of a job-search web app for the Govt. of India, resulting in 1.2M blue-collar jobs to Indian laborers.
- Analyzed 27M of supply chain data, generated DQIs using Informatica, and built changes to enhance the data quality by 17%.
- Designed & Developed a job-search platform using TensorFlow that utilized KNN algorithm to match laborers' skill sets with industry requirements; generated a 50%+ increase in job placements for unemployed blue-collar workers during Covid.
- Incorporated the KNN model into ElasticSearch to enhance job matching accuracy, resulting in an 85% accuracy rate.
- Collaborated with the SDE team to seamlessly integrate ML model with frontend using React to effectively display job matches.

## PROJECTS

**Movie Recommendation System (Python, PySpark)**                        Jan 2022 - May 2022
- Analyzed & processed 27M records of movie-user information in PySpark, and leveraged Python-Seaborn to plot graphs.
- Implemented collaborative filtering movie recommendation model using Spark's ALS algorithm to suggest top 10 movies based on genres. Conducted a comparative analysis of the baseline model's performance with Python libraries LightFM and Annoy.
- Achieved superior results using LightFM over ALS method, with an MSE score of 0.77 and computational time of 95.12 sec.

**Dialogue-based Interactive Facial Editing via Reinforcement Learning (PyTorch, NLP)**   Jan 2022 - May 2022
- Implemented a dialogue-based facial editing system using reinforcement learning that allows users to specify the desired facial editing effect in a natural language and interactively accomplish the goal via multimodal dialogue with system feedback.
- Devised quantitative & qualitative experiments to validate system performance, with 80% of participants favoring model results.

**Plasma Desk web app (ExpressJs, HTML/CSS, Firebase, AWS - ElasticSearch, Heroku)**      Aug 2020
- Created JS web app, driven by doctors, that connects an eligible plasma donor with a Covid patient, based on compatibility.
- Received **Best Medical Hack** and **Wolfram Award for Top 30 Hacks** in the MHacks 13 Beta Hackathon 2020 for the project.

## PUBLICATION

Paper titled '**An Integrated System for Occupational Category Classification based on Resume and Job Matching'** published in *International Conference of Data Analytics & Management, Springer, June 2020* **[Paper link]**

## ACHIEVEMENTS

- **Vice President** at **NYU Machine Learning Club**                          Jan 2023
- **100% Grant Recipient** for attending **Strange Loop Conference 2022** in St. Louis, Missouri   Sept 2022
- **3rd position in CSAW 2021** Cyber Security Games & Conference Hack3D competition.   Nov 2021