# PRATYUSHA PARASHAR

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## EDUCATION

**Northeastern University** — Boston, MA
MS in Data Science — *Jan 22-Present*
*Relevant Coursework*: Supervised Machine Learning, Data Management and Processing

**University of Mumbai** — Mumbai, India
B.E. in Information Technology *GPA: 8.2/10* — *Jun 17 - Jul 21*

**Certifications/Courses**: Fastai, Deep Learning Specialization (Coursera)

## WORK EXPERIENCE

**Vedantu (*EdTech*)** — Mumbai
*Product Associate* — *Aug 21 - Jan 22*

- Tracked product performance data in areas of Automation, CX & Child Safety and highlighted & inspected anomalies.
- Led chatbot effectiveness which resulted in automation improvement of addressing 30% more queries overall.
- Conducted various experiments based on clickstream data, callback turnaround time, website chatbot/agent transcripts, autosales conversion and NPS surveys for analysis and set up dashboards to monitor all this data on a monthly basis.
- Implemented proof of concept for a profanity filter leveraging machine learning in chats that was 34% more effective than the current system in blocking profane chats.
- Collaborated with cross-functional teams of analytics, acads, product, software, and data engineering to document, validate and analyze data sanity. Carried out tests to ensure new features run bug-free.

**Delta Technology & Management Services Pvt Ltd** — Mumbai
*Data Science Intern, Consulted the **Reserve Bank of India** (India's Central Bank)* — *Jan 21 - Mar 21*

- Employed Meltwater tool and web scraping to extract financial news articles that mention variables such as unemployment, inflation, exports, imports, growth, repo rate, IIP (Index of Industrial Production) etc., from hundreds of websites.
- Created a transformer model (FinBERT) using LAMB optimizer for news sentiment analysis to predict public opinion in real time on the economic variables, 10 Indian Banks and Non-Banking Financial Companies, and achieved an F1-score of 87%, all of which were used as an input in formulation of monetary policy.
- Implemented topic modelling on those news articles and devised a sentiment index to determine how positively/negatively the bank is being talked about.

**Mavoix Solutions** — Mumbai
*Machine Learning Intern* — *Aug 20 - Nov 20*

- Developed a state-of-the-art image classification model with a Mathews correlation coefficient of 89% on a self-curated dataset for identifying severity of skin infections where I employed multiple techniques from the 'Bag of tricks for Image Classification' research paper, data augmentation methods such as mixup to enable the model to generalize better.

**Vidyalankar Institute of Technology** — Mumbai
*Software Developer Intern* — *July 20 - Aug 20*

- Designed and developed a facial recognition model with an accuracy of 95% to serve as a contactless attendance management system which replaced the former thumb-print based management system.

**Kreatio Software** — Mumbai
*Machine Learning Intern* — *Jan 20 - June 20*

- Built a recommender system to suggest different visualization tools based on the VizML paper and added deep learning models for users to train their data in Kreatio's analytics application (NJAA).
- Automated repetitive tasks using Python, and scraped off information (e.g., pricing data) from websites.

## SKILLS

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|---|---|
| Programming Languages: | Python, SQL, Pyspark, R |
| Tools and Frameworks: | Pytorch, fastai, Keras, OpenCV, Scrapy, Selenium, Flask, Git, Tensorflow, Docker, Jenkins |
| Others: | NLP, Computer Vision, Collaborative Filtering, Time Series Forecasting, Web Scraping, Web Development, Google Cloud, AWS, Linux |

## PROJECTS

**Grayscale Image Colorization** — https://github.com/prats0599/Img-colorization

- Built an Image colorization model to convert grayscale images into RGB using a u-net style architecture.

**Sentiment Analysis (for ANY Language)** — https://github.com/prats0599/hindi-nlp

- Implemented ULMFiT (Universal Language Model Fine-tuning) from scratch for classifying IMDB movie reviews (in English) and achieved an accuracy of 92.8%. Authored an article on medium where I demonstrated how to perform language-modelling and sentiment analysis via deep learning for non-English Languages (used Hindi as an example).

**Sales Forecasting** — https://github.com/prats0599/Rossmann-Sales-prediction

- Designed and executed a solution to the Rossman store sales competition which utilized automatic feature extraction and achieved top 1% on the private leaderboard (exp_rmse = 0.112).