

Charvi Gupta

(732) 522-6281

gcharvi31@gmail.com

[gcharvi31.github.io](https://github.com/gcharvi31)

[LinkedIn](#)

[GitHub](#)

Education

New York University – M.S. in Computer Science

Sep 2022 – Present

Birla Institute of Technology and Science (BITS) Pilani – M.Sc.(Hons) Economics and B.E.(Hons) Electrical and Electronics Engineering

Aug 2015 – Jul 2020

Skills

Expertise: Machine Learning, Deep Learning, Data Science, Time-Series, Forecasting Models, Image Processing, Computer Vision, Natural Language Processing, Statistical Analysis, API Design, Web Scraping, Data Visualization

Languages & Tools: Python, SQL, C++, R, Tableau, PostgreSQL, Shell, Pytorch, Tensorflow, Scikit-learn, NumPy, Pandas, Matplotlib, Flask, Jupyter, Javascript, HTML, Scrapy, Spacy, Docker, Kubernetes, Git

Coursework: Deep Learning Systems, Machine Learning, Neural Networks, Artificial Intelligence, Data Structures & Algorithms, Object Oriented Programming, Optimization, Probability & Statistics, Econometrics, Multivariable Calculus, Linear Algebra

Certifications: [Microsoft Azure Fundamentals](#), [Deep Learning Specialization](#), [TensorFlow Developer Specialization](#)

Experience

Data Scientist, IBM – Bangalore, India

SEP 2020 - JUL 2022

- **Client - Sony Pictures:** Took ownership of the design and implementation of ML models and Data Science solutions in a 6-person team. The client engagement won the Innovation Award among 50+ domestic projects
 - Engineered a video metadata extraction system for identifying characters using Facenet and scene location using Resnet and image processing; reduced operational costs by 60%
 - Developed a table detection and information extraction process using image processing to extract invoice data
 - Independently developed an end-to-end NLP pipeline using entity recognition to identify sales leads from unstructured data, saved 20+ hours weekly
 - Designed a clustering and tagging algorithm for categorizing tweets using NLP and Topic Modelling
- **Client - BESTSELLER:** Worked on an AI-infused Product Lifecycle Management tool
 - Deployed the application on IBM Cloud for 3 brands. Maintained Argo workflow jobs for data ingestion
 - Engineered a web scraping program to enrich internal data for application demos to potential clients
 - Implemented in-app UI customization and feature enhancements using JQuery, Javascript, HTML, and Python

Software Development Engineer Intern, OYO Rooms – Bangalore, India

JAN 2020 – JUL 2020

- Developed similar listings feature using Elasticsearch filters resulting in improved listing visibility
- Created optimized RESTful APIs for migrating Invoicing service to SpringBoot application
- Integrated OpenStreetMap into the listing page; reducing overhead costs by 10%
- Coordinated in a 5-person team for general bug-fixing of backend code in PHP and Laravel

Data Scientist Intern, Couture AI – Bangalore, India

JUL 2019 – DEC 2019

- Automated dashboard editing in Apache Superset, reducing client workload by 10 hours weekly
- Created a demand forecasting model for a fashion website using Deep Learning and Forecasting models 4.5% sMAPE
- Evaluated machine learning algorithms for product recommendation and rule-based algorithms for Feature Selection

Projects

Video Prediction [\[Code\]](#) [\[Report\]](#)

NYU Courant | 2023

- Used Supervised Learning to predict future frame on synthetic video dataset containing moving 3D shapes
- Trained a ConvLSTM-GAN model using distributed training in Pytorch, achieved 0.44 IOU on validation set (Top 20%)

Evaluating training methods on QA datasets [\[Code\]](#)

NYU Courant | 2022

- Fine-tuned large language models on QA datasets using data and model parallelism training methods on NYU HPC

Santander Customer Satisfaction Challenge [\[Code\]](#)

BITS Pilani | 2018

- Classified customer satisfaction using traditional ML models like SVM, XGBoost, and Ensemble Decision Tree models
- Implemented data preprocessing, handling outliers and class imbalance, dimensionality reduction, and cross-validation