

Contact

lt2504@nyu.edu

www.linkedin.com/in/lakshayt7
(LinkedIn)

lakshaytyagi.netlify.app/ (Personal)

Top Skills

Microsoft SQL Server

Apache Spark

Data Science

Languages

English (Professional Working)

Hindi (Native or Bilingual)

Certifications

Learning Hadoop

Convolutional Neural Networks

Sequence Models

Honors-Awards

Academic Excellence Award

General Proficiency Medal

INSPIRE Fellowship

Publications

Humor@IITK at SemEval-2021
Task 7: Large Language Models
for Quantifying Humor and
Offensiveness

Federated Learning Using Variable
Local Training for Brain Tumor
Segmentation

Multi-institutional Travelling Model
for Tumor Segmentation in MRI
Datasets

Lakshay Tyagi

MS CS @ NYU Courant | IIT Kanpur | Mitacs | Samsung
New York, New York, United States

Summary

I'm a Computer Science Master's student at New York University, graduating in May 2024. My passion lies in software development, machine learning, data science, and quantitative research.

With internships at Mitacs and Samsung Research Bangalore, I've honed my skills in developing machine-learning models and tackling real-world challenges. My technical strengths include:

Machine Learning

Software Development

Natural Language Processing

Computer Vision

Distributed and Parallel Computing

I'm proficient in C++, Python, Java, JavaScript, Bash, SQL, and libraries like PyTorch, TensorFlow, Django, MPI, Hadoop, Pandas, and OpenCV.

I'm actively seeking full-time roles in these areas starting in May 2024, eager to contribute my expertise and drive technological innovation.

Experience

Courant Institute of Mathematical Sciences

1 year 8 months

Graduate Student

September 2022 - Present (1 year 8 months)

New York City Metropolitan Area

Working on developing Active Learning algorithms for NLP in Healthcare.

Graduate Teaching Associate

January 2023 - May 2023 (5 months)

New York City Metropolitan Area

Conducted classes and covered lecture materials for a Basic Algorithms course for undergraduate students. Helped design assignments and tests and conducted office hours to help students better understand the lecture material

Bayer

Data Science Intern

June 2023 - September 2023 (4 months)

New Jersey, United States

Trained and tested time series models in Python for forecasting sales of OTC brands of sales worth 100,000,000 \$

Improved MAPE by 11% on holdout by using ensembles of Recurrent Neural Network and XGBoost models

Developed automated forecasting pipelines in Databricks and experimented with new signals on backtests

Mitacs

Research Intern

May 2021 - August 2021 (4 months)

University of Calgary, Canada

Designed novel federated learning techniques for application in brain tumor segmentation. Parallelized the training of federated models on the Compute Canada cluster for a threefold speedup. Achieved a Dice Similarity Coefficient of 0.674 for a federated model by utilizing novel aggregation functions and variable local training which is comparable to the performance of a central model trained on pooled data.

Samsung R&D Institute India-Bangalore

Software Development Intern

May 2020 - July 2020 (3 months)

Bengaluru, Karnataka

Implemented Kernel Prediction Networks, an Auto-Encoder based CNN architecture in Tensorflow and tested its performance. Compared performance of four channel Bayer (Raw) and three-channel RGB images for Denoising. Experimented with combinations of Perceptual, L1 and Gradient Loss for Video Denoising and compared their performance. Investigated the impact of additional noise estimates on Video Denoising results and their impact on Model Performance.

Education

New York University

Master of Science - MS, Computer Science · (September 2022 - May 2024)

Indian Institute of Technology, Kanpur

Bachelor's degree, Major in Electrical Engineering and Chemical Engineering,
Minor in Computer Science · (2017 - 2022)