

# Savinay Shukla

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## EDUCATION

### New York University

Brooklyn, NY

*Master of Science in Computer Engineering*

*Sep 2022 – May 2024 (expected)*

- Relevant Coursework: Machine Learning, Deep Learning, High Performance Machine Learning

### Manipal University Jaipur

Jaipur, India

*Bachelor of Technology in Information Technology*

*Jul 2015 – Jul 2019*

- Relevant Coursework: Data Science, Data Structures and Algorithms, Operating Systems

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, R, SQL, NoSQL, MongoDB, JavaScript, TypeScript, HTML, CSS

**Data Science :** Data Analysis and Visualization, Statistics, Predictive Modeling, Feature Engineering, EDA, ETL

**Machine Learning :** Neural Networks, Computer Vision, Natural Language Processing, Time Series Analysis

**Frameworks :** Pytorch, Azure, Docker, REST, AWS, GCP, Cassandra, Kafka, Git, Kubernetes

## PROFESSIONAL EXPERIENCE

### Graduate Teaching Assistant

New York City, NY

*New York University*

*Jan 2023 – Present*

- Spearheading support in implementing advanced deep learning systems within distributed environments using High-Performance Computing (HPCs)
- Guided 40 graduate students in the implementation of TensorFlow and PyTorch applications on HPC clusters
- Curated course content on the use of NumPy, Pandas, and Numba in data science and scientific computing

### Software Engineer

Bengaluru, India

*IBM*

*Dec 2019 – Aug 2022*

- Led successful migration of legacy Apache Struts 2 web app to Spring microservices architecture, enhancing scalability and performance
- Optimized CI/CD pipelines, resulting in a 40% reduction in deployment time and a 25% increase in release frequency
- Awarded “IBM Gold Champion Learner - 2020” recognition for a continuous learning initiative

### Data Science Intern

Pune, India

*Morning Blaze Pvt. Ltd.*

*Feb 2019 – Jul 2019*

- Engineered a data modeling pipeline for extracting market indicators (commodities, forex, global markets), enhancing predictive modeling for BSE automotive stock opening prices
- Implemented lightweight time forecasting models, integrating market and technical indicators to boost accuracy
- Conducted comprehensive research on historical data, ensuring incorporation of extensive indicators to effectively capture stock market downturns
- Optimized the engine across 300+ BSE companies, resulting in an impressive 5% reduction in prediction losses

## CERTIFICATIONS AND BADGES

**IBM Data Science Professional** | *Authorized by IBM*

Dec 2021

**IBM AI Associate** | *Authorized by IBM*

Aug 2021

- Demonstrated proficiency in data science, utilizing Jupyter notebooks, Python, SQL, and relevant libraries for solving real-world problems

## PROJECTS

### Distributed Dual-Discriminator GANs | *Pytorch, Generative Models, HPC*

Apr 2023 – May 2023

- Optimized DCGAN training pipeline by introducing an extra discriminator for faster convergence
- Realized a 40% reduction in time for optimal FID and IS Scores across CIFAR, MNIST, and SVHN datasets
- Implemented a parameter-server architecture for distributed, multi-GPU training to scale the prototype

### ClearView - Lightweight Dehazenet | *PyTorch, Computer Vision*

Mar 2023 – May 2023

- Revamped the Dehazenet architecture by incorporating efficient depth-wise separable convolutions
- Attained on par model performance with less than 2000 trainable parameters and 8MB model size