# Savinay Shukla

917-815-8731 | ss16924@nyu.edu | linkedin.com/in/savinayshukla | github.com/SavinayShukla

## 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++, SQL, NoSQL, MongoDB, CUDA, 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 Course Assistant** — New York City, NY
*NYU Center for Data Science* — *Jan 2023 – Present*
- Leading the charge in the deployment of sophisticated deep learning systems in distributed settings, leveraging High-Performance Computing (HPCs) with a focus on Large Language Models (LLMs) and CUDA development
- Mentored a group of 40 graduate students in the practical application of TensorFlow and PyTorch on HPC clusters, with special emphasis on implementing Vision Transformers and optimizing CUDA performance

**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