# Savinay Shukla

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## Education

**New York University** — Brooklyn, NY
*Master of Science in Computer Engineering* — *Sep 2022 – May 2024 (expected)*

- GPA : 3.97
- 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*

- GPA : 3.6
- Relevant Coursework : Data Science, OOPs, Data Structures and Algorithms, Operating Systems

## Technical Skills

**Languages**: Java, Python, C/C++, SQL, R, JavaScript, TypeScript, HTML, CSS
**Data Science** : Data Analysis and Visualization, Statistics, Predictive Modeling, Feature Engineering, EDA, ETL
**Machine Learning** : Neural Networks, Computer Vision, Regressive Modeling, Time Series
**Frameworks** : Pytorch, Angular, Docker, Spring Boot, 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 35 students in the implementation of TensorFlow and PyTorch applications on HPC clusters
- Curated course content on the use of NumPy, Pandas, and Numba in computational chemistry

**Developer** — Bengaluru, India
*IBM India* — *Dec 2019 – Aug 2022*

- Boosted database read performance by analyzing queries, optimizing key columns for indexing, and achieving a 30% reduction in read time for improved efficiency
- 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 scraping 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

## 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