

# Savinay Shukla

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## EDUCATION

### New York University

Master of Science in Computer Engineering

Brooklyn, NY

Sep 2022 – May 2024 (expected)

### Manipal University Jaipur

Bachelor of Technology in Information Technology

Jaipur, India

Jul 2015 – Jul 2019

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, 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, TensorFlow, Azure, Docker, REST, AWS, GCP, Cassandra, Kafka, Git, Kubernetes

## PROFESSIONAL EXPERIENCE

### Graduate Course Assistant

NYU Center for Data Science

New York City, NY

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)
- 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

### Software Engineer

IBM

Bengaluru, India

Dec 2019 – Aug 2022

- Led successful migration of legacy Apache Struts 2 web application to Spring microservices architecture, enhancing scalability and performance
- Leveraged Java 8, Hibernate, and Oracle Database to create a robust and efficient back-end for the microservices
- Spearheaded code reviews and QA within an agile and test-driven development environment, elevating overall code quality by 40%

### Data Science Intern

Morning Blaze Pvt. Ltd.

Pune, India

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

**Charlotte** | Ollama, Langchain, Python

Feb 2023 – Present

- Developed an innovative personal assistant utilizing Langchain and open-source LLMs like Mistral and Llama 2 to optimize productivity workflows
- Engineered a speech-to-text input pipeline seamlessly integrated with Gmail API for efficient email management and Slack API for instant notifications

**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