

# 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

## EXPERIENCE

### Graduate Teaching Assistant

New York University

New York City, NY

Jan 2023 – Present

- Spearheading support in implementing distributed deep learning systems within distributed environments using **High-Performance Computing (HPCs)**
- Mentored 40 graduate students in deploying machine learning and **PyTorch** applications on HPC clusters, fostering the creation of comprehensive end-to-end systems

### Software Engineer

IBM

Bengaluru, India

Dec 2019 – Aug 2022

- Led successful migration of legacy Apache Struts 2 web application to **Spring microservices**, enhancing scalability and performance
- Collaborated on integrating web services and prioritizing **RESTful API** enhancements to streamline the application migration process
- Leveraged **Java 8, Hibernate, and Oracle** Database to create a robust and highly available backend
- Spearheaded code reviews and QA within an **agile** and **test-driven development** environment, elevating overall code quality by 40%
- Optimized internal 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

## PROJECTS

### World On Wheels | *Angular, TypeScript, SQL, TailwindCSS*

Oct 2023 – Nov 2023

- Engineered a responsive car-rental front-end application using Angular and TypeScript for an intuitive interface
- Deployed the application on **EC2, S3 and DynamoDB** using **AWS CDK**
- Integrated Sass, Material UI, and TailwindCSS for streamlined and visually appealing design.
- Implementing prioritized user-centric and responsive design, incorporating JWT authentication and historical booking records over HTTP for a personalized and seamless user experience

### 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

### Maersk's Shipper Portal | *Angular, Spring Boot, Apache Struts*

Apr 2020 – Aug 2022

- Transformed a legacy web application into a microservice-based architecture on **Spring MVC**
- Enhanced API backend to seamlessly integrate dynamic report generation using Jasper Reports, resulting in a remarkable 40% boost in report generation performance

## TECHNICAL SKILLS

**Languages:** Java, Python, C++, JavaScript, TypeScript, SQL, PostgreSQL, MongoDB, HTML, CSS, Unix

**Developer Tools:** VS Code, Swagger, JUnit, jQuery, Mockito, Git, Version Control, Docker, UI/UX, Kubernetes

**Technologies:** Angular, React, Node.js, Express.js, Vue.js, Spring Boot, Jira, Web Services, AWS, Kafka, Jenkins