

# 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++, JavaScript, TypeScript, SQL, PostgreSQL, MongoDB, HTML, CSS

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

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

## PROFESSIONAL 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

### Full Stack 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
- 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 efficient backend for the microservices
- Implemented real-time tracking and industrial cargo reporting features, elevating functionality and user experience
- Spearheaded code reviews and QA within an agile framework, 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 Google Cloud Platform (GCP) services, including Cloud SQL, Compute Engine, and Cloud Pub/Sub
- Integrated Sass, Material UI, and TailwindCSS for streamlined and visually appealing design.
- Prioritized user-centric and responsive design, incorporating JWT authentication and historical booking records for a personalized 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 microservices-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