

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

Developer Tools: VS Code, Eclipse, GCP, IBM Cloud, Git, SVN, Docker, Linux, UI/UX, REST

Technologies: Angular, React, Node.js, Express.js, Spring, Web Services, REST, AWS, Kafka, Kubernetes, Jenkins

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant

New York University

New York City, NY

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
- Orchestrated engaging classes and informative lab sessions to ensure students' understanding of machine learning frameworks
- Assisted Silver Professor David J. Pine in organizing his course on scientific computation using Python
- Curated course content on the use of NumPy, Pandas, and Numba in computational chemistry

Software Engineer

IBM

Bengaluru, India

Dec 2019 – Aug 2022

- Led successful migration of legacy Apache Struts 2 web app to Spring microservices architecture, enhancing scalability and performance
- Leveraged Java 8, Hibernate, and Oracle Database to create a robust and efficient backend for the microservices
- Boosted database read performance by analyzing queries, optimizing key columns for indexing, and achieving a 30% reduction in read time for improved efficiency
- Collaborated within an agile framework to perform code reviews and quality assurance, improving overall code quality by 20%
- 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

PROJECTS

World On Wheels | Angular, TypeScript, SQL, TailwindCSS, Django

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
- Prioritized user-centric design, incorporating 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
- Enhanced API backend to seamlessly integrate dynamic report generation, resulting in a remarkable 70% boost in report generation performance