

Harshita Asthana

hasthana@asu.edu • +1 (206) 841-1380 • [linkedin.com/in/harshita-asthana](https://www.linkedin.com/in/harshita-asthana) • github.com/asthanaharshita

Education

Arizona State University, Tempe, Arizona

Expected – Dec 2024

MS in Computer Science

Coursework: Machine Learning, Deep Learning, Artificial Intelligence, Algorithms, Data Processing at Scale, Data Visualization, Data Mining, Knowledge Reasoning, Software Verification and Validation, Information Security and Assurance

Amity University, Noida, India

Aug 2008 – Jun 2012

B.Tech. in Computer Science and Engineering

Work Experience

IT Infrastructure Lead, Barclays Bank - Pune, India

Sep 2020 – Jan 2023

- Led team of 12 DBAs in Oracle database management, performance tuning, and troubleshooting.
- Migrated multiple databases to AWS cloud, resulting in a 30% performance boost and cost efficiency.
- Managed backup/recovery using RMAN, Datapump, and optimized disaster recovery solutions.
- Designed and deployed monitoring frameworks using OEM for database health and performance metrics.

Consultant, T-Systems ICT India Pvt Ltd - Pune, India

Dec 2019 – Sep 2020

- Installed, configured, and maintained Oracle databases across multiple platforms.
- Spearheaded Oracle database migrations, performance tuning, and optimization for high-availability environments.
- Implemented data encryption and enhanced security protocols in compliance with industry standards.

Oracle Database Associates, Tata Consultancy Services - Pune, India

Sep 2017 – Dec 2019

- Hands-on experience with installation and troubleshooting of ASM Grid and OEM Agent issues.
- Implemented robust backup and recovery strategies using RMAN, executing both online and offline backups and restores.
- Reviewed and provided feedback on code from peers.
- Maintained and updated documentation, adapting content as necessary. Diagnosed and resolved database and system issues.

Database Administration Engineer, SunGard Availability Service - Pune, India

Sep 2016 – Sep 2017

- Proven experience in core DBA responsibilities such as database patching, schema creation and optimization, security administration, performance enhancement and other database-related tasks.
- Majorly worked on Disaster recovery Scenarios using various methodology like point-in-time recovery, Flashback Database, & Goldengate.
- Helped the project team with the implementation and performance improvement of databases on the insurance and financial projects.

Senior System Engineer, Capgemini - Mumbai, India

Apr 2013 – Sep 2016

- Managed Oracle schema refreshes installed Shareplex/Streams and ensured data security using Guardium and Delphix.
- Took care of the Remedy and Service Now tickets within p99 time frame to meet the SLA.
- Configured Guardium, delphix and patrolling on production databases for privacy compliance and to secure data from ransomware.

Projects

MNIST Handwritten Digit Classification (Deep Learning)

- Objective: Achieved 98.89% accuracy in classifying handwritten digits using Convolutional Neural Networks (CNNs). Experimented with different model architectures (kernel size, feature maps) to optimize accuracy. Demonstrated expertise in deep learning and model tuning.
- Technologies: Python, TensorFlow, Keras

NYC Taxi Hot Zone Detection (Big Data Processing)

- Objective: Analyzed large-scale taxi trip data to identify high-activity zones using Spark and Scala. Applied geospatial partitioning techniques and the Getis-Ord statistic to detect statistically significant clusters of high taxi activity.
- Technologies: Apache Spark, Scala

Meal Detection System (Data Mining & Machine Learning)

- Objective: Developed a machine learning model using SVM and Decision Trees to classify meal and no-meal periods from glucose and insulin data. Successfully trained models with high accuracy using time-series feature extraction and employed k-fold cross-validation for performance evaluation.
- Technologies: Python, Scikit-learn, Pandas

Business Locator System (NoSQL & Spatial Data Processing)

- Objective: Built a Python-based system that queries a NoSQL database (UnQLite) to find businesses based on geographic location and city name. Used spatial algorithms and the Haversine formula for efficient location-based querying.
- Technologies: Python, NoSQL (UnQLite)

Awards and Certifications

- AWS Certified Cloud Practitioner
- Oracle Cloud Infrastructure Foundations 2020 Certified Associate

Technical Skills

Python, Java, Oracle, PostgreSQL, NoSQL, AWS, MapReduce, Apache Spark, PyTorch, TensorFlow, ETL