Toshal Warke

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Education

Arizona State University — Tempe, AZ
Master of Science in Computer Science — *Aug 2023 – May 2025*

University of Petroleum and Energy Studies — Uttarakhand, India
Bachelor of Technology in Computer Science — *Aug 2017 – Jun 2021*

Technical Skills

Languages: Python, SQL, Java, C++
Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, LangChain
Cloud & MLOps: AWS (SageMaker, Lambda, Bedrock), GCP (Vertex AI, TPU), Azure (ML Studio, OpenAI)
Big Data: Apache Spark, Databricks, BigQuery
Tools: Docker, Kubernetes, CI/CD, FastAPI, REST APIs

Experience

Software Engineer | *ThinkFuture Technologies, India* — Mar 2021 – Jun 2023

- Architected AI-based testing frameworks for eCommerce search, increasing edge-case coverage by 20%.
- Implemented ML-driven test case selector using historical defects, reducing QA time by 30%.
- Led deployment of CI/CD pipelines on AWS and GCP, accelerating release cycles by 35%.
- Optimized multi-cloud inference systems, boosting model throughput by 25%.
- Mentored 5 junior engineers; introduced onboarding templates to cut ramp-up time.

Data Analyst Intern | *Pratham Software* — May 2020 – Sep 2020

- Developed Python/Seaborn/Tableau dashboards that enhanced decision-making by 15%.
- Redesigned Azure Blob Storage structure, increasing access speed by 30% with 99.9% uptime.

Projects

Cross-Camera Action & Identity Recognition — May 2024 – Aug 2024

Built in collaboration with a startup to deploy a production-ready video recognition system.

- Engineered YOLOv8-based tracking pipeline for cross-camera identity matching.
- Deployed real-time inference on GCP Vertex AI, improving system accuracy by 25% and uptime by 30%.

Microblogging Enhancement via AI — Jan 2024 – Apr 2024

Faculty-guided applied AI research project at Arizona State University.

- Clustered disaster-related tweets using K-means to improve topic segmentation.
- Integrated LLM summarization via LangChain + Azure ML, increasing engagement by 50%.

Customer Lifetime Value Prediction — Dec 2023 – Mar 2024

Capstone project for Applied Machine Learning course.

- Processed 100K+ records using PCA; achieved 89.7% prediction accuracy on regression model.
- Utilized BigQuery and Databricks for scalable data prep and feature engineering.

Neurodegenerative Disease Detection — Aug 2023 – Dec 2023

Research project under ASU faculty supervision.

- Built CNN classifier using MRI and PET scans; deployed inference using AWS Lambda and ASU supercomputers.

Volunteering & Leadership

Technical Director | *AI Society @ ASU*

- Led MLOps workshops on AWS/GCP; mentored 20+ students on cloud deployments and LLM pipelines.