

BHUMI GODIWALA

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EDUCATION

Arizona State University

- Doctor of Philosophy(PhD) in Computer Science

Tempe, AZ
January 2026-Present

University of Southern California

Master of Science

- Master of Science in Computer Engineering (Machine Learning and Data Science specialization)

Los Angeles, CA
August 2021-May 2023
(GPA 3.8/4.0)

Dwarkadas J. Sanghvi College of Engineering, University of Mumbai

Bachelor of Engineering

- Bachelor of Engineering in Electronics and Telecommunications Engineering

Mumbai, India
July 2016-October 2020
(CGPA 9.19/10)

PROFESSIONAL EXPERIENCE

Infosys Ltd — Senior Data Scientist | Houston, TX | Jan 2025 – Nov 2025

- Boosted **utility theft detection accuracy by 25%**, improving lead conversion and revenue protection.
- Optimized Budget Billing analytics to uncover behavioral drivers, increasing **enrollment 15% and retention 10%**.
- Translated complex datasets into actionable policies with engineering & product teams, improving **customer engagement KPIs**.

MemoryCare AI — Sr. AI/ML Engineer | Newport Beach, CA | May 2024 – Jan 2025

- Built **LLM + RAG pipelines** (Python, TensorFlow) improving retrieval accuracy and powering HIPAA-compliant patient assistance.
- Created avatar-based speech & behavior tracking (PyTorch, OpenCV) with **90% detection accuracy**, enabling early Alzheimer's/TBI intervention.
- Designed Azure-based cognitive assessment platform, **cutting test time 35%** and scaling securely across clinics.

USC Information Sciences Institute — ML Engineer | Marina Del Rey, CA | Jul 2023 – Jul 2024

- Developed **Adaptive Mixture Quantization (AMQ)** for Cloud/Edge AI, improving accuracy **5%**, reducing model size **15%**, and boosting comms efficiency **30%**.

TetraMem Inc — Machine Learning Intern | Fremont, CA | May 2022 – May 2023

- Optimized Human Pose Estimation & Visual Wake Words models for edge inference chips, achieving **93% accuracy with reduced memory & latency**.
- Applied **Quantization Aware Training & post-training quantization**, maintaining accuracy while shrinking parameters significantly.

Tata Consultancy Services — Software Engineer | Mumbai, India | Oct 2020 – Aug 2021

- Developed and deployed **Java/HTML/CSS/JS modules** for university portals used by **10k+ students**, improving usability and reducing load time.
- Automated metadata mapping & reporting pipelines, cutting manual processing by **30%**.

TECHNICAL SKILLS

- **Programming:** Python, Java, C++, SQL, Git
- **ML/DL:** PyTorch, TensorFlow, Scikit-Learn, Keras, ONNX, OpenCV, QAT
- **Cloud/Data:** AWS (S3, Lambda, EC2), Oracle Cloud, Azure Cognitive Services, Spark, Hadoop, Docker
- **Databases:** PostgreSQL, Redis, Elasticsearch, NoSQL

ACADEMIC PROJECTS

Automatic Email Generation

- Built an **email automation app** with FastAPI (backend, GPT-3) and React (frontend).
 - Deployed via Docker + AWS (Lambda, EC2, API Gateway), enabling **scalable real-time email generation**.
- Technologies: Python, FastAPI, React, Docker, AWS (Lambda, EC2, API Gateway)*

ASL Gestures Prediction using ST-GAN for Shadow Removal

- Engineered **GAN-CNN fusion** to remove shadow noise and improve ASL gesture classification.
 - Achieved **92.9% test accuracy** on gestures; integrated **MLFlow** for experiment tracking and MLOps.
- Technologies: Python, PyTorch, TensorFlow, GAN, CNN, MLFlow*

Community Car Rental Platform

- Developed a full-stack web app with Google Maps, VIN API & Clouinary integrations; deployed via Google Cloud CLI.
 - Leveraged **Hadoop (batch) + Spark (real-time analytics)** to provide recommendations based on car rental patterns.
- Technologies: React, Google Cloud, Hadoop, Spark, MongoDB, GraphQL, Clouinary, VIN API*

Banking Subscription Analysis

- Predicted client subscription behavior using Logistic Regression, Decision Trees, Random Forests, and SVM.
 - Benchmarked semi-supervised learning approaches (**S3VM, label propagation, Co-training**) to improve prediction accuracy.
- Technologies: Python, Scikit-Learn, Pandas, NumPy, SVM, Random Forest, Logistic Regression*