

Akshit Modi

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EDUCATION

Master of Science, Biomedical Informatics & Data Science
Arizona State University, Tempe, AZ

May 2025
GPA 3.74/4.0

Relevant Coursework: Health Informatics Database, Embedded Machine Learning, Biostatistics, Microbe Data Science, Problem Solving in BMI (JIRA, Agile, Project Management), Java Programming, BMI method (NLP, computer vision)

Bachelor of Engineering in Biomedical Engineering
Gujarat Technological University, Ahmedabad, India

May 2021
GPA 8.32/10

Relevant Coursework: Calculus, Vector Calculus & Linear Algebra, Numerical Techniques & Statistical Methods, Programming in C

TECHNICAL SKILLS

- **Programming & Database Tools:** Python (Scikit, NumPy, NLTK, Spacy, Matplotlib, TensorFlow, Pandas), R, SAS, C, Java SQL, MySQL, MongoDB
- **Other Skills:** Agile, JIRA, Git, AWS, Statistical Analysis, Tableau, Power BI, Machine Learning, Deep Learning, Project Management, Revenue Management, Decision Making, Data Modeling, Data Wrangling, Probability, HTML, CSS, Flask
- **Certifications:** AWS Certified Cloud Practitioner, Machine Learning by Sandford, Deep Learning Specialization from deeplearning.ai, Google Data Analytics

PROFESSIONAL EXPERIENCE

Data Analyst

Arizona State University, Tempe, AZ

February 2024 - May 2024

- Arizona was experiencing a Federally Qualified Health Centers (FQHCs) shortage, which impacted Medicaid enrollees' healthcare
- Identify areas with FQHC shortages and support policy decisions to improve healthcare access for millions of Medicaid recipients.
- Used Excel to clean and organize data, then built Tableau dashboards to analyze population, county, and GeoID data.
- Produced a report and visualization that informed Medicaid policy, improving healthcare access for millions of enrollees in Arizona.

RCM Analyst

Meditab Software Pvt. Ltd, Ahmedabad, India

April 2021 - July 2023

- Increased provider revenue by 50%, recovering 8 million dollars in 7 months through effective optimization of billing workflow.
- Collaborated with a team of four Medical Billing Executives, optimizing data analysis, RCM techniques, and client communication to identify denial issues, reducing claim processing time by 30% and increasing reimbursement rates by 30%.
- Collected SQL-based revenue cycle reports and Tableau dashboards to track the top reason for denial, enhancing decision-making and improving billing accuracy by 25%, directly contributing to a healthier financial position and reduction in claim denial.

ACADEMIC PROJECTS

Personalized Medicine Recommendation System

January 2024 - May 2025

- Developed a Medicine Recommendation System by analyzing over 10,000 patient demographics and lab results using XGBoost machine learning models and NLP; optimized treatment recommendations for helped healthcare across diverse cases.
- Processed over 1 million records from MIMIC-IV dataset alongside Synthea counterparts employing libraries like NumPy.
- Implemented a web-based AI recommendation system utilizing Streamlit, integrating SHAP and LIME for explainability; strengthened treatment prediction accuracy by 25% for over 100 healthcare professionals in real-time scenarios.

AI-Powered Chest X-ray Diagnosis Tool

September 2024 - December 2024

- Delivered an AI-powered diagnostic tool, performed 15 different chest diagnoses, and developed a CNN-based multiclass multilabel classification model leveraging the CHEXPERT dataset to detect 15 chest diseases from X-ray images.
- constructed a web application with MongoDB for image storage and JavaScript, HTML, and CSS for frontend, and Flask for backend development, and deployed on AWS.

Student Score Forecasting System

January 2024 - June 2024

- Made a student score prediction model CatBoost, achieving 96% accuracy through data cleaning, feature engineering, and model optimization techniques.
- Built a web application Flask, HTML, and CSS to get real-time predictions, deploying it on AWS Elastic Beanstalk.
- Gained data-driven insights for student performance, supporting educational decision-making with accurate, 1-second response.

LEADERSHIP & HONORS

- Organized and coordinated multiple Quench tech-fest events at GEC Gandhinagar, managing 2000+ participants and leading a team with an initiative to enhance community engagement and promote technology-driven solutions to real problems.
- Secured 3rd place in the Smart Gujarat Hackathon by applying embedded systems to solve challenges in medical devices, and collaborating with teammates.
- Ranked in the Top 1% of the Meditab training program and earned Employee of the Month five times, recognized for initiative, and leadership by clients.