Akshit Modi

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Education

MS in Biomedical Informatics and Data Science (Arizona State University) **May 2025**
Relevant course: App Biostats, Microbiome Data Science, BMI Methods-2 (Machine Learning, NLP and Database), **GPA: 3.94/4.0** , Health Informatics, JAVA, Foundation of BMI Methods 1, Health Informatics Database

Bachelor of Engineering in Biomedical Engineering (Gujarat Technological University) **July 2021**
Relevant course: Biomedical Image Processing, Analog Circuit, Digital Signal Processing, **GPA: 8.32/10**
Medical Imaging Technique, Medical Optics, Embedded System, Statistical Methods

Skills & Certification

Languages: Python (Libraries: Pandas, Numpy, Scikit, Matplotlib), SQL, MySQL, SAS, C
Technical Skills: Machine Learning, Deep Learning, Data Analyst, Data Science, Data Models, Data Mining, FHIR, EHR, EMR, Statistics, MATLAB, Embedded System,
Tools: Excel, MS Word, PowerPoint, Tableau
Certificate: Machine Learning by Stanford Online, Deep Learning Specialization, Python

Professional Experience

Data Analyst, ASU, Health Policy Lab (Part-Time) **February 2024- May 2024**

- Data Cleaning & Preprocessing Spearheaded the development of comprehensive policy enhancement dashboards in Tableau, resulting in a 30% improvement in analytical accuracy and reduced reporting time.
- Designed and analyzed 10+ advanced Tableau dashboards, enabling real-time policy analysis and driving a 25% increase in department decision-making efficiency.
- Automated critical processes to evaluate and compare the quality of care in Medicaid plans and compare more than seventy parameters and states, resulting in improved patient outcomes and more informed policy decisions.

EHR Analyst (Meditab Software Pvt. Ltd., Ahmedabad) **April 2022- July 2023**

- Data-Driven Revenue Cycle Management: Utilized data analytics to expertly manage all aspects of revenue cycle management expertly, increasing provider revenue by 50% per month and recovering $6 million in 7 months.
- Billing Data Insights: Analyzed comprehensive billing data to optimize processes, including eligibility verification, charge posting, payment posting, and denial management.
- Financial Data Optimization: Implemented data-driven financial solutions, leveraging analytics to optimize revenue streams and enhance the financial stability of healthcare providers.

Project Experience

Microbial Interaction Network (Academic Project) **Jan 2024-May 2024**

- Symbiotic Interaction Networks**:** Constructed detailed interaction networks based on data, demonstrating crucial roles microorganisms play in aiding plant survival and ecosystem stability in the Salar de Atacama wetlands.
- Advanced Microbial Analysis: Employed 16S rRNA gene sequencing and utilized QIIME2 tools to conduct comprehensive analyses, including phylogenetic tree construction, alpha diversity, beta diversity, and taxonomy analysis.
- Ecosystem Stability Contributions: Revealed critical insights into microbial contributions to nutrient uptake and plant growth, underscoring their importance in maintaining the stability and health of wetland ecosystems.

Health Monitoring System Using IoT (Bachelor's Thesis) **August 2020-May 2021**

- Innovative IoT-Based Health Monitoring: Developed a comprehensive final year thesis project utilizing AD8232, MAX30100, and DS18B20 sensors to monitor vital physiological parameters such as ECG, Pulse, SPO_2, and Temperature.
- Real-Time Data Transmission & Cloud Integration Deployed NodeMCU ESP8266 for real-time data transmission and seamless cloud integration, allowing live access to patient vitals via third-party platforms; increased data accuracy by 30% and enhanced monitoring capabilities by 50%.
- Advancing Telemedicine During COVID-19: Demonstrated and promoted advanced telemedicine solutions by enabling live transmission of patient vitals to healthcare providers, significantly enhancing remote patient care during the COVID-19 pandemic.