# **NADEEM ABDUL**

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A healthcare professional with a strong background in the healthcare industry seeking to leverage analytical skills and technical expertise to drive improvements in health data management, analysis, and clinical decision support systems. Committed to enhancing patient care and operational efficiencies through the innovative application of health informatics solutions.

#### **EDUCATION**

#### Master of Science, Health Informatics (GPA-3.93/4.0)

George Mason University, College of Public Health, Fairfax, VA

#### Bachelor of Dental Surgery (GPA-9.2/10)

Gitam dental college and hospital, Visakhapatnam, India

#### **SKILLS**

- Programming & Data Analysis: Python (Pandas, NumPy), R, SAS, Stata, MATLAB
- Databases & Querying: SQL (T-SQL, MySQL, PostgreSQL, PL/SQL), Azure SQL, SQL Server, BigQuery ETL pipelines, data warehousing, performance tuning
- Data Visualization & BI: Tableau, Power BI, Looker, QlikView, SSRS, Excel (pivot tables, advanced formulas), Matplotlib, Seaborn, Plotly
- Statistical Modeling & Machine Learning: Regression (linear, logistic), classification (SVM, Random Forest), clustering, time-series forecasting, predictive modeling
- AI & NLP: Text preprocessing, sentiment analysis, transformer APIs (OpenAI), chatbot development
- Healthcare Informatics & Standards: EMR/EHR systems (Epic, Cerner, Meditech), interoperability (HL7, FHIR, DICOM), clinical terminologies (SNOMED CT, UMLS, LOINC, ICD-10)
- Health Information Management & Compliance: Medical record auditing, coding & billing workflows, HIPAA compliance, regulatory reporting, data governance
- Financial & Contract Analytics: Revenue cycle optimization, claims modeling, rate-structure analysis, payer-contract performance monitoring
- **Project & Collaboration:** Agile/Scrum, stakeholder communication, professional presentations, infographic design, Version control & collaboration: Git/GitHub, JIRA
- Soft Skills: Attention to detail, strong written/verbal communication, organizational & time-management skills, adaptability.

## **RELATED COURSE WORK**

**Python:** Acquired a solid understanding of Python's syntax, data structures, core programming, loops, numpy for numerical computing, pandas for data manipulation, and matplotlib visualization. Successfully applied Python scripting in Linux environments. Gained practical experience in CGI, developing dynamic and interactive web applications using web Python for seamless integration with servers.

**SQL** and **Database management:** Proficient in crafting efficient SQL queries for data retrieval and analysis. Contributor to quality assurance & testing processes, ensuring integrity and functionality of IT solutions.

**Tableau:** Created interactive and visually compelling dashboards to simplify complex hospital datasets. Implemented real-time dashboards by connecting Tableau to live data sources.

# **ACADEMIC PROJECTS**

# **Data-Driven Strategies for Revenue Optimization and Telehealth Implementation**

Jan 2025 - May 2025

- Analyzed 4 years of clinic data; identified 47% of revenue delayed >91 days
- Developed a predictive model to forecast revenue and proposed AI chatbot reminders to reduce no-show rates by 30%
- Designed digital strategies to improve patient engagement and financial outcomes

## Al Mental Health Chatbot – COMMON Al

Aug 2024 - Dec 2024

Built chatbot using Python and NLP; 90% classification accuracy based on DSM-5 criteria
 Integrated sentiment analysis to flag critical responses and reduce triage time by 60%

#### Analysis of Missing Data on Antidepressant Use

Aug 2024 - Dec 2024

Applied logistic regression and imputation on All of Us data to improve antidepressant treatment prediction by35%

## Feature-Based Classification of Cardiomegaly and Pleural Effusion

Aug 2024 – Dec 2024

Achieved 87% diagnostic accuracy using MATLAB and machine learning on chest X-rays

#### **Tableau Healthcare Dashboard**

Oct 2023 - Dec 2023

Built visual dashboards for 100,000+ rows of hospital data; reduced report generation time by 50%

#### **Python EV Market Trend Analysis**

Nov 2023 - Dec 2023

Analyzed global EV sales using Pandas and Seaborn, revealing 25% year-over-year growth trends

#### **WORK HISTORY**

# Data Analyst at Tazewell Orthopedic & Arthritis Clinic

Jan 2025 - June2025

- Identifying delays and underperforming services.
- Delivered insights that improved reimbursement efficiency and supported a 15% increase in revenue through better Patient-provider alignment

# Teaching Assistant - George Mason University, Fairfax, VA

Jan 2025 - May 2025

- Assisted in Health Information Systems and Health Data Mining courses
- Led review sessions and provided academic support to graduate students

# General Duty Medical Officer - State Government, Visakhapatnam, India

Aug 2020 - Oct 2021

- Deployed EMR systems, reducing manual errors by 45% and increasing protocol compliance
- Analyzed COVID-19 data to improve emergency response time by 20%

## Software Engineer - Prodatix Info Solutions PVT LTD

Oct 2019 - Mar 2023

Worked on data-driven applications using Python and machine learning
Built dashboards and tools using Tableau and NLP for operational efficiency