

PALAK TANWAR

tanwar.pa@northeastern.edu | 617-404-6023

linkedin.com/in/ptanwar | github.com/palaktanwar | ptanwar.me

EDUCATION

Northeastern University, Boston, MA	May 2027
Master of Science in Data Analytics Engineering	GPA 4.0/4.0
<ul style="list-style-type: none">• Data Management• Data Analytics Engineering• Computation and Visualization for Analytics• Advanced Algorithms	

Thapar Institute of Engineering & Technology, Patiala, India	Jun 2019
Bachelor of Engineering in Computer Engineering	GPA 7.42/10.0
<ul style="list-style-type: none">• Artificial Intelligence• Parallel and Distributed Computing• Image Processing• Operating Systems	

SKILLS

Programming & Databases: Python, R, SQL (MySQL), C, C++

Data Analysis & ML: Pandas, NumPy, scikit-learn, PCA, clustering, regression, MATLAB

Visualization & Tools: Tableau, Power BI, Jupyter Notebook, Git

WORK EXPERIENCE

Chaitanya Charitable Trust, Gujarat, India

Data Analyst & Strategist	Jun 2020 – Jul 2024
<ul style="list-style-type: none">• Led on field surveys, engaging with over 1000 locals to understand the problems faced by the community and present data driven insights to provide targeted solutions• Developed ETL pipelines and conducted exploratory data analysis on survey data and identifying economic challenges faced by the community• Designed detailed reports using data visualization tools to track campaign performance, and using generated insights to make strategic adjustments, leading to an increase of 35% in audience reach• Collaborated directly with local communities encouraging active involvement in campaigns, enhancing campaign participation by 30%	

Trident Analytical Solutions Pvt. Ltd., Noida, India

Business Analyst (Part-Time)	May 2022
<ul style="list-style-type: none">• Organized stakeholder meetings to analyse business requirements, address project challenges, and streamline workflows• Designed detailed and automated reports using MS Excel, Power BI that led to improvement in project efficiency by uncovering insights• Facilitated cross functional team communication by acting as liaison between business and technical teams, resulting in better decision making and achieving faster project deliveries	

PROJECTS

Mental Health Access & Usage Patterns Data-Driven Insights	April 2025
<ul style="list-style-type: none">• Utilized Python (Pandas, NumPy), Seaborn, and Matplotlib to analyze 10,000+ Household Pulse Survey records across demographic groups and time periods• Implemented data preprocessing techniques including missing value imputation, categorical encoding, and feature engineering to prepare datasets for analysis• Applied time series and correlation analysis to uncover trends in medication usage and disparities in mental health care access• Designed visualizations (distribution plots, heatmaps, demographic breakdowns) to effectively communicate findings to stakeholders	

MIMIC-III Patient Data Insights | Healthcare Analytics

Feb 2025
<ul style="list-style-type: none">• Conducted data cleaning and exploratory data analysis on real world medical data of CCU patients extracted from Metavision and CareVue monitors (MIMIC-III)• Optimised clustering accuracy by leveraging Principal Component Analysis and t-SNE reducing dimensionality and preserving the most important data• Successfully implemented K-means and Hierarchical Clustering to segment data into clusters and analyse similarities between data points• Visualised clustering results using Seaborn and Matplotlib, by utilizing scatter plots, pair plots, heatmaps and dendograms• Implemented predictive modelling using Logistic Regression to forecast patient readmission based on their medical history