

# FNU TRUPTI

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Graduated student in Information Systems with hands-on experience in data analysis, machine learning, and data visualization using Python, SQL, and Power BI. Proven ability to Improved performance and data accuracy using technical skills.

## EDUCATION

<b>University of Maryland, Baltimore County</b>	May 2025
Master's in Information Systems, Catonsville, MD	GPA: 3.9/4.0
<b>Godutai Engineering College for Womens</b>	Aug 2021
Bachelor's in Electronics and communication, Kalaburagi, Karnataka	CGPA: 8.9/10

## EXPERIENCE

**NEOPATHOLOGY CORP.** | *Research And Development Intern* Jun 2024 - Aug 2024

- Engineered Python-based feature extraction algorithms using skimage.measure.regionprops to analyze 2,500+ tissue structures.
- Integrated shape analysis tools into internal systems, improving measurement completeness by 26%.
- Conducted statistical validation of extracted features, increasing object detection reliability in histopathology pipelines
- Used Git for version control and documentation of code for reproducibility.

**UNIVERSITY OF MARYLAND, BALTIMORE COUNTY** | *Research Assistant* Feb 2024 - May 2025

- Designed machine learning models using survival analysis and fairness-aware algorithms for healthcare applications.
- Engineered disparity metrics in Python to evaluate resource allocation bias and improve equitable outcomes.
- Built data pipelines to preprocess healthcare datasets using Pandas and NumPy.

**GOVERNMENT TOOL ROOM AND TRAINING CENTER** | *Data Analyst* Mar 2021 - May 2023

- Developed SQL-based systems and automated Python workflows to track and report machine performance.
- Built Power BI dashboards for real-time KPI monitoring, improving decision-making and operational visibility.
- Implemented PLC, SCADA, and IIoT systems using MQTT and Raspberry Pi for predictive maintenance.
- Conducted time-series analysis and integrated CMMS data, using Azure Data Studio,increasing throughput by 12% and reducing downtime by 10%.

## SKILLS

<b>Languages</b>	Python, SQL, R, Java, C/C++, HTML, CSS, JavaScript
<b>Data Analysis</b>	Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, WEKA
<b>Visualization</b>	Tableau, Power BI, Matplotlib, Seaborn, Excel
<b>Databases</b>	MySQL, PL/SQL, NoSQL, SQLite, MongoDB
<b>Cloud &amp; Tools</b>	GitHub, Docker, AWS, Azure, Visual Studio, Adobe XD, Lens Studio
<b>Industrial Tools</b>	SCADA, CMMS, MQTT, Raspberry Pi

## PROJECT

**Spotify AI Recommender** | *Apr 2025*

- Built a Streamlit app that recommends songs using cosine similarity and mood classification based on Spotify audio features
- Trained ML models to classify mood (happy, calm, energetic) using features like tempo, valence, energy, and danceability.
- Integrated EDA tools and PCA visualizations to analyze genre, mood, and song clusters from uploaded playlists and Spotify API data.

**Named Entity Recognition (NER)** | *Dec 2024*

- Developed a biomedical NER system using Python, scikit-learn, and spaCy with SVM and CRF models.
- Applied preprocessing (tokenization, POS tagging, lemmatization) and optimized performance through grid search tuning.
- Evaluated and visualized model outputs using custom annotation tools on annotated biomedical datasets.

**Database Management System** | *Oct 2023*

- Developed a restaurant management system using PL/SQL for inventory, menu, and order tracking.
- Designed normalized relational schemas, built stored procedures, triggers, and views to automate reporting and improve performance.
- Used MySQL Workbench for schema modeling, query optimization, and functional testing in a simulated production environment.