**ROUNAK LADDHA**

(312) 532‑7191 |[rladdha@hawk.illinoistech.edu](mailto:rladdha@hawk.illinoistech.edu) | [https://www.linkedin.com/in/rounak‑laddha/](https://www.linkedin.com/in/rounak-laddha/)

**experience**

**Data Science Practicum Intern**-Random Shopping Cart Generator

Pure Platform, Chicago (remote) January 2025 - May 2025

* Designed a hybrid recommendation engine (ALS + TF-IDF + Market Basket Analysis) using Pure Platform’s dataset (10,000+ users) to simulate realistic shopping carts; evaluated variants through offline metrics (accuracy, product match rate) and simulated A/B testing to compare model effectiveness.
* Built a KPI-tracking dashboard using Streamlit to simulate user login, product search, and behavioral tracking (cart, favorites, views); optimized backend data pipelines (ETL, Parquet) to reduce load time to under 5 seconds.
* Extracted high-lift product affinities (lift > 27) across categories like Computers & Electronics and Health & Fashion using pattern recognition, enabling product bundling recommendations.
* Skills: Python, SQL, Streamlit, ALS, TF-IDF, Market Basket Analysis, Parquet, ETL, Pandas, Data Visualization, Recommender Systems, Product Analytics.

**projects**

**Retail Forecasting – Walmart Weekly Demand Prediction**

* Built a multi-model inventory forecasting system leveraging Prophet and XGBoost to predict weekly sales across 45 Walmart stores and 81 departments, attaining a 24% MAE reduction over baseline.
* Merged 3 datasets and engineered 7+ temporal features to capture local trends and seasonality, simulating real-world demand shifts similar to restaurant performance tracking.
* Engineered and submitted a full 115,064-row competition-style forecast file using (Store + Dept) average fallback logic, achieving WMAE of 3643.34 and aligning with real-world evaluation metrics.
* Deployed an interactive Streamlit dashboard displaying XGBoost vs Prophet forecasts, enabling sales managers to identify and address accuracy gaps in 5 store departments.

**Smart Resume Parser – NLP And ATS Optimization**

* Developed a **named entity recognition (NER)** system using **spaCy** and fine-tuned **BERT**, achieving a 66% macro F1-score across 10 custom entity labels (Name, Email, Skills, etc.).
* Created a Streamlit app allows resume uploads (PDF/text), real-time model selection (BERT vs spaCy), entity visualization, and JSON downloads; processed 100+ resumes in interactive test runs.
* Trained and aligned a BERT token classification model using HuggingFace Transformers and PyTorch, resolving Word Piece token alignment issues and improving precision/recall across 10 entity labels.

**SKILLS AND CERTIFICATIONS**

**CERTIFICATIONS**

* HackerRank SQL (Intermediate) – Certified,2024
* Python for Everybody (Coursera, University of Michigan) - Completed 4 courses with 98%+ average grade across all modules.

**TECHNICAL SKILLS**

* Programming Languages: Python, SQL.
* Machine Learning & Analytics: Statistics, Scikit-learn, TensorFlow, Regression, Hypothesis Testing, Keras, NumPy, Pandas, Matplotlib, Seaborn, Feature Engineering, Model Evaluation, Predictive Modeling, EDA, ETL.
* Programming Skills: Data Structures and Algorithms, Object-Oriented Programming (OOP).
* Tools & Platforms: Snowflake, Tableau, Power BI, Microsoft Office Suite (Word, PowerPoint, Excel and Outlook), Flask, Streamlit.

**education**

Illinois Institute of Technology, Chicago, IL Expected December 2025

**Masters of Data Science**

PVG'S College of Engineering and Technology, Pune, India June 2023

**Bachelor of Engineering in Information Technology, GPA: 3.3**