

# Venkata Sai Mithil RAVULAPALLI

## PROFILE SUMMARY

An aspiring Data Scientist with a strong Foundation in Python and R. At present, I am a junior in Data Science at the University of Illinois at Chicago (UIC). Proficient in machine learning techniques, statistical analysis, and data visualization through hands-on projects, including recommendation systems and predictive modeling. Proficient in using popular data science libraries such as NumPy, Pandas, and Scikit-learn. Adept at conducting exploratory data analysis (EDA) and applying statistical methods to derive meaningful insights. Seeking data science internship to apply academic expertise and contribute to solving real-world data challenges while further developing professional skills in a dynamic environment.

## CONTACT DETAILS

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📁 Portfolio  
in LinkedIn

## TECHNICAL PROFICIENCIES

- Programming: C, C++, Java, Python, R, SQL, SAS
- Data Analysis: EDA, Statistical Analysis, Hypothesis Testing, Business Analytics, Data Interpretation
- Libraries: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, TensorFlow
- Machine Learning: Decision Trees, Random Forests, Neural Networks
- Visualization: Dashboard Creation, Charts, Graphs, PowerBI, Tableau
- Techniques: Hyperparameter Tuning, Cross-validation, Feature Engineering
- Tools: Jupyter Notebook, VS Code, GitHub, Google Colab, Linux (WSL)
- Databases: MariaDB, MySQL
- Other Skills: UML, Data Structures, LaTeX, Excel, Business Communication

## PROJECTS AND OTHER ACTIVITIES

### TATA DATA VISUALIZATION: EMPOWERING BUSINESS WITH EFFECTIVE INSIGHTS October 2024

- ◆ **Summary:** Completed a business simulation focused on creating impactful data visualizations for Tata Consultancy Services.
- ◆ **Work/Impact:** Developed executive-level dashboards and prepared strategic questions for client leadership meetings. Created analytical visualizations to drive business decision-making.
- ◆ **Performance:** Delivered clear, actionable insights through effective data interpretation and visualization techniques.

### RECOMMENDATION SYSTEM August 08-26, 2024

- ◆ **Summary:** Developed a comprehensive recommendation engine using collaborative and content-based filtering.
- ◆ **Work Impact:** Implemented TF-IDF and SVD techniques to enhance recommendation accuracy. Explored deep learning with neural networks and autoencoders for complex user-item interactions.
- ◆ **Performance:** Evaluated models using precision, recall, and RMSE metrics. Employed cross-validation for robust assessment.
- ◆ **Tools/Skills:** Python, TF-IDF, SVD, Neural Networks, Autoencoders, Cross-validation

### PREDICTING POTENTIAL CUSTOMERS July–August 2024

- ◆ **Summary:** Created a machine learning model to forecast lead conversion to paid customers.
- ◆ **Work/Impact:** Improved prediction accuracy through implementation of Decision Trees and Random Forests algorithms with hyperparameter tuning.
- ◆ **Performance:** Utilized cross-validation, confusion matrices, and ROC curves for thorough model evaluation.
- ◆ **Tools/Skills:** Python, Decision Trees, Random Forests, Hyperparameter Tuning, Cross-validation

### FOOD HUB ANALYSIS May-June, 2024

- ◆ **Summary:** Conducted in-depth analysis of restaurant demand patterns to guide business strategy.
- ◆ **Work/Impact:** Created data visualizations to illustrate order distribution and customer preferences. Applied statistical analysis to quantify relationships between variables.
- ◆ **Performance:** Provided actionable insights for business strategy optimization based on data-driven findings.
- ◆ **Tools/Skills:** Python, Statistical Analysis, Data Visualization, Matplotlib, Seaborn

## EDUCATION

BACHELOR OF SCIENCE IN DATA SCIENCE. *University of Illinois at Chicago.*  
**Expected: May, 2026**

## CERTIFICATIONS

- ◆ DATA SCIENCE AND MACHINE LEARNING: MAKING DATA-DRIVEN DECISIONS *from MIT Institute for Data, Systems, and Society (IDSS)*  
**May-September, 2024**