Rishikesh Donthula

US Citizen • rdonthula@gatech.edu • 934-414-0878 • www.linkedin.com/in/Rishikesh-Donthula

EDUCATION

Master of Science in Analytics (GPA: 4.0)   **August 2025 - December 2026**
Georgia Institute of Technology   *Atlanta, GA*
Courses: Computer Vision, Data Analytics in Business, Machine Learning, Understanding Markets with Data Science

Bachelor of Science in Computer Science   **September 2019 - May 2024**
New York University   *New York City, NY*
Minors in Mathematics, Finance; Dean's List (2019-2020)
Courses**:** Artificial Intelligence, Data Science, Databases, Data Analysis, Multivariate Calculus

PROJECT EXPERIENCE

Machine Learning Project: Customer Churn Prediction & Behavioral Segmentation   **November 2025**
Python, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, CatBoost, XGBoost, LightGBM
- Designed an end-to-end churn prediction system by cleaning and **integrating 7 telecom datasets** into a unified customer table, enabling supervised modeling on **7,000+ customers** with mixed categorical and numerical features.
- Delivered **~85% ROC-AUC** and strong lift performance, with the top 10% highest-risk customers **accounting for ~77% churn** compared to a 26% baseline rate, supporting targeted retention strategies.
- Evaluated 28 model configurations across **linear, kernel-based, and gradient-boosting** methods, using SMOTE and cross-validation to address class imbalance and select CatBoost as the strongest performer.

Computer Vision Project: Semantic Segmentation for Urban Scene Understanding   **October 2025**
Python, PyTorch, OpenCV, NumPy
- Built pixel-level semantic segmentation system to **label** urban driving scenes, enabling fine-grained understanding of roads, vehicles, pedestrians, and background elements from raw images.
- Achieved **~62%** mean Intersection-over-Union (mIoU) on an 11-class scene dataset and **~93% mIoU** on binary road segmentation after **transfer learning** and fine-tuning.
- Implemented and compared baseline segmentation models against PSPNet with pyramid pooling and dilated convolutions, adapting a pretrained backbone to new datasets with **limited labeled data**.

Machine Learning Project: Fraud Detection via Unsupervised Pattern Discovery   **September 2025**
Python, NumPy, Matplotlib, Scikit-learn
- Developed unsupervised fraud detection workflow on **280,000+ financial transactions** to identify anomalous behavior patterns in settings where fraud labels are sparse or unreliable.
- Identified well-separated behavioral clusters with up to a **3× improvement** over random baselines, enabling interpretation of high-risk spending patterns for downstream investigation.
- Applied and compared K-Means and Gaussian Mixture Models, evaluating cluster quality using Silhouette Score and Adjusted Rand Index across multiple initializations.

WORK EXPERIENCE

Frontend Development Intern   **June 2023 - August 2023**
GoFloaters   *Chennai, India*
React Native, JavaScript, Git
- Improved UI consistency across core screens (Home, Search, Profile, Space Details) on mobile and web by implementing design spec updates and fixing layout and styling issues.
- Implemented client side search logic, including filtering and sorting rules, to surface relevant inventory and present results in the expected order.
- Fixed data rendering edge cases in listings and detail views, ensuring pricing and ratings displayed correctly across different space types and configurations.

TECHNICAL SKILLS

Languages: Python, R, SQL, LaTeX, C++, HTML, JavaScript
Libraries/Frameworks: PyTorch, NumPy, Pandas, Scikit-Learn, SciPy, Matplotlib, Seaborn, Flask, React Native
Tools: Jupyter, Git, MS Project
Technical Interests: Machine Learning, Risk Modeling, Statistical Analysis, Computer Vision
Certifications: Applied Data Science with Python Specialization (University of Michigan - Coursera)