

Pranav Kaja

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

Master of Science in Business Analytics, GPA: 4.00/4.00

Sep 2024 – May 2026

- Coursework: Machine Learning, Data Management, Statistics, Data Visualization, Project Management

GITAM Deemed to be University

Bachelor of Technology in Computer Science and Engineering

Aug 2019 – May 2023

SKILLS

Analytics & Business Intelligence: Power BI (Advanced DAX), Tableau, KPI Dashboarding, Data Storytelling, Segmentation, Statistical Analysis, Demand Forecasting

Programming & Data Engineering: Python (Pandas, NumPy, Scikit-learn), SQL (PostgreSQL, Window Functions), R, Advanced Excel (VBA, Power Query), Flask, REST APIs, Git/GitHub, ETL Pipelines, Data Warehousing

Modeling & AI: Random Forest, Gradient Boosting, XGBoost, Logistic Regression, SMOTE, LLM Integration, Feature Engineering

PROFESSIONAL EXPERIENCE

UMass Amherst Dining Services

Amherst, MA

Student Supervisor

Sep 2024 – May 2026

- Engineered an automated ETL pipeline in VBA and Power Query to parse daily transaction data across 37 retail locations, cutting manual entry by 90%
- Segmented 15,000 daily patrons by volume and product mix, reallocating staffing during peak windows to raise throughput at flat labor cost
- Forecasted daily inventory flows from historical demand, adjusting procurement to prevent stockouts and trim carry on slow-moving SKUs
- Audited data across prep and service stages to surface root-cause inefficiencies, lifting yield by 27%

Acmegrade

Data Science Intern

May 2022 – Jul 2022

- Trained Random Forest and Gradient Boosting classifiers on a 100,000-record client portfolio, lifting conversion-prediction accuracy by 15% over baseline

TECHNICAL & OPERATIONS PROJECTS

Two-Stage Fraud Detection | XGBoost, Google Gemini (LLM)

🌐 Case Study

- Built a two-stage pipeline: XGBoost scores 284,807 transactions, a Gemini agent triages high-risk flags
- Lifted the model's AUC from 0.60 to 0.978 despite fraud being under 1% of data, catching 84% of it
- Added a Gemini AI agent to review flags and suggest actions, catching a fraud the model rated zero risk

End-to-End Heart Disease Prediction Engine (Capstone) | Python, Scikit-learn, Flask

🌐 Case Study

- Compared five classifiers (Logistic Regression, Random Forest, SVM, KNN, Decision Tree) on a 13-feature clinical dataset; Random Forest led at 82% accuracy
- Deployed the champion model as a Flask web app for real-time risk scoring from a 13-field form
- Ranked the strongest predictive drivers with model feature importances to explain the risk logic

Auto Insurance Churn Prediction | Python, Scikit-learn, SMOTE

🌐 Case Study

- Modeled churn on 92,849 policyholders (11.5% churn); removed a data-leakage column (post-suspension date) that had inflated an earlier model
- Applied SMOTE to the training set and compared five classifiers on ROC-AUC; Gradient Boosting won at 0.70 and was threshold-tuned to prioritize recall

CPK Production Planner | Vanilla JavaScript, HTML, CSS

🌐 Case Study

- Shipped a client-side tool that pivots a daily order report into per-station production sheets, replacing a 39-tab spreadsheet across 36 locations
- Developed in vanilla JavaScript with no backend, so make lists generate from one paste, entirely in the browser

TapInnovations Corporate Analytics | Power BI, DAX

🌐 Case Study

- Designed executive Power BI dashboards on live B2B streams, cutting weekly review time by 30%
- Wrote custom DAX measures giving leadership direct visibility into cross-functional throughput

LEADERSHIP & ACTIVITIES

Esports SIG – GITAM

Operations and Finance Lead

Sep 2022 – Jul 2023

- Tracked finances across 7 concurrent programs, tripling turnout to 1,800+ through data-led scheduling
- Secured 100% external sponsor funding through structured outreach and governance documentation, eliminating reliance on university budgets

Crescendo Magazine – GITAM

Marketing and Social Media Coordinator

Sep 2022 – Jul 2023

- Led a 5-person team across two campaign cycles, growing audience engagement by 170%