

ADVAY BHATTACHARYA

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[LinkedIn](#) | [GitHub](#)

Data Science | Machine Learning | Applied Statistics

EDUCATION

Texas A&M University, College Station, TX

Bachelor of Science in Statistics

GPA: 3.92 – Dean's Honor Roll

Aug. 2023 – May 2027

WORK EXPERIENCE

Analytics Intern (Return) – UnitedHealth Group, Risk Adjustment Service Offering (RASO)

Jun. 2026 – Aug. 2026

- Redesigned compliance reporting, replacing manual Excel with a Power Apps + SharePoint + Power BI pipeline
- Cut manual entry time 83% (4 hrs to 40 min per week) by automating data entry across 400+ data points
- Resolved 80+ bugs through multi-phase testing and presented the finished solution to senior leadership
- Built and validated an AI agent for SLA reporting, trained on handoff documentation, reaching 90% accuracy across 20 test prompts

Analytics Intern – UnitedHealth Group, Revenue Cycle Management (RCM)

Jun. 2025 – Aug 2025

- Deployed Power BI dashboard analyzing 5M+ accounts / \$39.6B revenue, consolidating 170+ sources; uncovered 98% year-over-year growth in high-value customers
- Identified critical revenue cycle discrepancies through SQL + Power Query pipelines, uncovering 3,200+ accounts (\$160M+) erroneously assigned to third-party vendors, enabling recovery of misallocated claims

Undergraduate Research in ML and Health – Kathan Vyas

Aug. 2025 – Present

- Engineered a preprocessing pipeline synchronizing 50+ physiological signals for downstream ML modeling
- Built scalable pipelines handling 100M+ rows; built XGBoost classifier reaching 0.867 AUC on 12 features
- Developing a transformer-based model with ICU medical teams predicting shunt occlusion timing in congenital heart disease patients

Undergraduate Research in ML and Predicting Change Orders – Dr. Ashrant Aryal

Aug. 2024 – Jan. 2025

- Built a K-Nearest Neighbors model to predict change orders across 800K+ TxDOT highway project line items
- Created case-based reasoning algorithm with custom multi-label evaluation metrics (Jaccard, Hamming loss, ROC-AUC) to handle a heavily imbalanced dataset
- Merged multiple 900,000+ row datasets in SQLite database using chunking and supercomputing resources

PROJECTS

Lung Cancer Detection from CT scans

Jan. 2026 – Apr. 2026

- Built the modeling behind a tool that takes a CT scan image and predicts lung cancer subtype with 91% accuracy, deployed by the team as a live web app
- Compared 4 modeling approaches on 1,460+ training images, beating a baseline (50.9% accuracy) by 41 points
- Found model initialization mattered more than training strategy, adapting weights beat fresh ones by 7.6 points

TAMUHack 2025 – 2nd Place

Jan. 2025

- Developed Coinvo, an AI-powered financial advising platform, integrating OpenAI's chatbot and real-time stock trading APIs to enhance user financial management
- Secured 2nd place out of 536 participants for an innovative approach to promoting smart financial behavior
- Developed full-stack solution (Flask, Fast API, JS), integrating AI + trading APIs under 36-hr time constraint

LEADERSHIP

TAMU Mock Trial Team

Sep. 2023 – Present

- Named a national Top Performer by independent mock trial analysts and Returning Member of the Year, winning an award at every tournament in the 2025-2026 season
- Pioneered a structured, team-wide note system to fix stagnating post-tournament feedback
- Captained team to 6 consecutive tournament awards and mentored 3 first-time award winners

RELEVANT SKILLS

- Programming: Python, SQL, R, C++, JavaScript
- Data Science/ML: Scikit-Learn, Pandas, NumPy, BERT, Random Forest, Gradient Boosting, NLP, PyTorch
- Tools: Power BI, Excel, Git, Jupyter, STATA, Power Query, Flask, Fast API, Hugging Face
- Skills: Data Visualization, Machine Learning, Deep Learning, Statistical Analysis