

Predictive Medical Records Auditing

The Challenge | Bridging the Gap to a Cloud-Native Future

In the high-stakes world of medical coding and billing, accuracy is the difference between financial health and lost revenue. UASI, a leader in medical records coding and audit services, provides critical support to healthcare providers by making sure procedure and diagnosis codes are accurate, ensuring providers get paid correctly and without delay.

UASI's proprietary platform, RAF Vue, was designed to help healthcare providers maximize their benefits from Medicare Advantage plans. To stay ahead of the competition and provide deeper value, UASI recognized an opportunity: predictive medical records auditing.



The goal was to build a Machine Learning (ML) model into RAF Vue that could automatically identify which patient records were most likely to contain coding errors. By flagging high-risk charts, UASI could move from manual, broad-spectrum auditing to a targeted, high-impact approach.

As winner of The Circuit's AI Proving Ground competition, UASI partnered with CoStrategix to turn this conceptual use case into a functional, revenue-driving product feature.

Outcomes

By integrating the CoStrategix-built ML model into the RAF Vue platform, UASI is transforming its auditing capabilities. The model specifically targets Hierarchical Condition Category (HCC) audits, which are vital for Medicare reimbursement. This new predictive medical records auditing model is enabling:

- **Improved Error Detection:** The model accurately flags records with the highest probability of coding discrepancies, which increases the percentage of errors caught compared to manual sampling
- **Improved RAF Scores:** By identifying and correcting missed or inaccurate diagnoses, healthcare providers see a direct improvement in their Risk Adjustment Factor (RAF) scores, ensuring they receive the full Medicare rates they are entitled to
- **Accelerated Speed-to-Resolution:** The platform now finds errors in the recording of chronic conditions much faster, allowing for timely annual reporting - a critical requirement for Medicare compliance and revenue maximization



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“The CoStrategix team has been so easy to work with and is incredibly knowledgeable. My small team would not have been able to generate this model on our own, and it is now providing real value in our product,” said Josh Knepfle, CTO at Technology at UASI.

“The collaboration between UASI and CoStrategix is exactly why we created the AI Proving Ground,” said Tracy Ruberg, Executive Director of The Circuit. “Seeing this POC evolve into a tool that drives real efficiency for UASI is a prime example of how our region has become a hub for high-impact AI innovation.”

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The Process

UASI lacked the internal data science and engineering resources to build a sophisticated ML model from scratch. The collaboration between The Circuit, UASI, and CoStrategix focused on transforming years of human expertise into a scalable digital intelligence.

Phase 1: Data Integration & De-identification

- UASI provided CoStrategix with access to a rich dataset of historical code audits. To ensure compliance and security, all data was de-identified. The dataset included:
 - Assigned medical codes from patient charts
 - Actual patient health diagnoses
 - Historical audit logs showing where and why coding errors occurred

Phase 2: Model Design and Correlation Discovery

CoStrategix data scientists built an ML model to analyze the data to find hidden correlations. The team focused on “learning” the patterns that lead to coding errors. By comparing original codes against audited corrections, the ML model learned to recognize the “fingerprints” of a high-risk medical record. The model was trained to flag HCC audit records where a correction would result in the most significant impact on the patient’s RAF score and the provider’s reimbursement.

Phase 3: Integration into RAF Vue

The final step was embedding the model directly into the RAF Vue platform. This allows UASI’s customers to use a seamless interface where the ML does the heavy lifting - automatically flagging patients who require a closer look by an auditor.

“In today’s healthcare landscape, the ability to turn data into action is what separates market leaders from the rest of the field. By bridging the gap between raw clinical data and actionable financial insights, CoStrategix helped us build a competitive edge in the revenue cycle management industry.”



Nancy Koors
Chief Executive Officer

