ionidea AI
ENGAGE EXCELLENCE

Case Study | HEALTHCARE
REVENUE CYCLE MANAGEMENT

AI-Assisted Coding for a Outsourced Medical Coding Company

Problem

Medical coders faced challenges keeping up with ever-changing coding rules, especially for complex or specialized cases.

Maintaining high coding accuracy was time-consuming and could lead to billing errors and revenue losses.

Solution

Implementation of AI-powered Computer-Assisted Coding (CAC) software:

- **Natural Language Processing (NLP)**Analyzing unstructured text within medical records to identify key diagnoses, procedures, and relevant information
- **Machine Learning:** Algorithms trained on large datasets of coded medical records to accurately suggest codes and identify potential inconsistencies.
- **Intuitive Interface:** User-friendly platform allowing coders to review and interact with AI-generated suggestions.

Results

- Improved coding accuracy, reducing the risk of billing errors and maximizing revenue.
- Increased coder productivity, as the AI handles routine tasks and flags complex cases for in-depth review.
- Enhanced compliance with audit trails tracking changes and decisions assisted by AI, ensuring transparency.

Technology Stack

- **NLP Libraries:** NLTK, spaCy, or specialized medical NLP tools.
- **Machine Learning:** Libraries like scikit-learn, TensorFlow, or PyTorch.
- **CAC Software:** A robust system with the flexibility to integrate AI capabilities.

Software Development

- **Model Training:** Training machine learning models on a comprehensive dataset of accurately coded medical records.
- **Interface Design:** Prioritizing clear presentation of AI suggestions and ease of use for coders.
- **Audit Trails:** Transparent logging of AI-assisted coding decisions.

Before Metrics

Coding accuracy rate: 95%

Coder productivity: 4 charts per hour

After Metrics

Coding accuracy rate: 98%

Coder productivity: 5 charts per hour