#### MICHIGAN STATE UNIVERSITY

#### Beta Presentation Intelligence Parser and Knowledge Assistant

#### The Capstone Experience

#### Team Roosevelt Innovations Knowledge Science

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From Students... ...to Professionals

### **Project Overview**

- Insurance data translation to Roosevelt system
- Time-consuming data translation
- Extract relevant insurance information
- AI chatbot connected with insurance documents

# System Architecture



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# Homepage

| <ul> <li>✓ R° Roosevelt Intelligence Para</li> <li>← → C</li></ul> | er × +<br>tintelligenceparser.com/home | - 0 X                                   |
|--|--|---|
| Roosevelt" Inte  | elligence Parser                       | Talk with Knowledge Assistant & Profile |
|  | Sessions:                              | T B Search Q                            |
|  | SecureHealth_Premium ~                 | Updated: Nov 11, 1:12 PM ••••           |
|  | Crescent Dental Plan 🗠                 | Updated: Nov 10, 7:53 PM •••            |
|  |  |   |
|  |  |   |
|  |  |   |
|  |  |   |
|  |  | Items Per Page: 10 1 - 2 of 2 🖌 < 🗲 🗎   |

# Validation Page Service Tables

| osevelt <sup>®</sup> Intelli | gence Parse     | ir:          |                    | Talk w   | ith Knowle   | dge Assis    | tant & P       |
|------------------------------|-----------------|--------------|--------------------|--|--------------|--------------|----------------|
| Parsed PDF Data              |                 |              | Minimize PDF       |  |              |              | ÷ 6            |
| ervices:                     |                 |              |                    | 2025   | Premium Dent | al Plan Summ | ary            |
| Diagnostic and Prev          | entive Services |              |                    | This cental plan, provided by<br>range of dential services, ensur  |              |              |                |
| Service                      | In-Network      | Premier      | Out-of-Netw        | The plan includes full coverage for preventive services, partial coverage for basic and map<br>services, and orthodorific support, making it an secolierit option for individuals and femilies wit |              |              |                |
| Diagnostic & Preventive      | 5 100%          | 90%          | 80%                | prioritize over health. This sciencery suffree the key benefits, eligibility criteria, and exclusions &<br>Securitizeality 2025 Premium Denial Plan.   |              |              |                |
| Exams                        | 100%            | 90%          | 80%                | Group #: 12245-7098, 7501, 7982, 7003, 7864<br>Issued by: SecureHealth Insurance Co.<br>Control Plan: SecureHealth of California   |              |              |                |
| Cleanings                    | 100%            | 90%          | 80%                |  |              |              |                |
| Fluoride Treatments          | 100%            | 90%          | 80%                | Benefit Year: January 1 - Dec  |              |              |                |
|                              |                 | 1000         |                    | Covered Services   | In-Natwork   | Premier      | Out-of-Network |
| X-rays                       | 100%            | 90%          | 80%                | Dagroots & Preventive Terrocae   | 100%         | 875          | 875            |
|                              |                 |              |                    | Bank Services  | 80%          | 70%          | 80%            |
| Add Row                      |                 | Restore Data | Ottotarti: Service | 10%  | 50%          |              |                |

# Validation Page with Chatbot

| Diagnostic and Preventive Serv   | line       |         | Talk with Knowledge Assistant           X         Knowledge Assistant   |  |  |
|----------------------------------|------------|---------|---|--|--|
| Service                          | In-Network | Premier | Give me a list of diagnostic and  |  |  |
| Diagnostic & Preventive Services | 100%       | 90%     | preventive services   |  |  |
| Exams                            | 100%       | 90%     |   |  |  |
| Cleanings                        | 100%       | 90%     | The diagnostic and preventive<br>services covered under the<br>SecureHealth 2025 Premium<br>Dental Plan include: 1.   |  |  |
| Fluoride Treatments              | 100%       | 90%     |   |  |  |
| X-rays                           | 100%       | 90%     | Comprehensive dental exams  |  |  |
| Add Row<br>Minor Services        |            |         | (once per year). 2. Biannual<br>cleanings. 3. Up to two fluoride<br>treatments per year for members<br>under 18. 4. Bitewing X-rays twice<br>annually and full mouth X-rays<br>every three years. |  |  |
|                                  |            |         | annually and full mouth X-rays  |  |  |
| ervice                           | In-Network | Premier |   |  |  |

# Validation Page Additional Info

| C S rooseveltintelligenceparser.com/validate/2025-premium-dental-plan  | (@ Gue                        |
|--|-------------------------------|
| osevelt Intelligence Parser  | Talk with Knowledge Assistant |
| dditional Info:  | Open PD                       |
| 'Covered Services'   |                               |
| <ul> <li>Basic Services, Major Services, and Orthodontic Services.</li> <li>1. Diagnostic &amp; Preventive Services: <ul> <li>Exams: Comprehensive dental exams covered once per year, including specialized evaluation</li> <li>Cleanings: Blannual cleanings covered to promote oral hygiene and prevent gum disease.</li> <li>Fluoride Treatments: Coverage for up to two treatments per year for members under 18.</li> <li>X-rays: Bitewing X-rays twice annually, with full mouth X-rays covered every three years.</li> </ul> </li> </ul> | ns.                           |
| <ol> <li>Basic Services:</li> <li>Fillings: Amalgam and composite fillings covered to repair cavities and damaged teeth.</li> <li>Root Canals: Endodontic services covered, limited to once per tooth every five years.</li> <li>Extractions: Routine and surgical extractions, including wisdom teeth, are covered.</li> </ol>  | Ĭ                             |

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# **Completion Page**

| → C S rooseveltintelligenceparser.com/complete/202 | 5-premium-dental-plan |         | Guest                         |  |
|--|-----------------------|---------|-------------------------------|--|
| posevelt" Intelligence Parser                      |                       |         | Talk with Knowledge Assistant |  |
|  | Parsed PDF Dat        | ta      |                               |  |
| Iownload Files 👻                                   | ad Files - Services:  |         |                               |  |
| Diagnostic and Preventive                          |                       |         |                               |  |
| Service  | In-Network            | Premier | Out-of-Network                |  |
| Diagnostic & Preventive Services                   | 100%                  | 90%     | 80%                           |  |
| Exams  | 100%                  | 90%     | 80%                           |  |
| Cleanings  | 100%                  | 90%     | 80%                           |  |
| Fluoride Treatments                                | 100%                  | 90%     | 80%                           |  |
|  | 100%                  | 90%     | 80%                           |  |

## What's left to do?

- Features
  - None
- Stretch Goals
  - Collaboration feature
  - API Cost Dashboard
- Other Tasks
  - Chatbot response bubble
  - Resizing UI
  - Excel formatting
  - Improve LLM system prompting
  - Improve semantic search chunking

## **Questions?**



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