

NebulaByte_Product_Overview

Title: NebulaByte Intelligent Automation Suite - Product Overview

Our AI platform is a powerful blend of Natural Language Processing (NLP), sophisticated Multi-Agent Orchestration, and Reinforcement Learning (RL) models designed to transform enterprise data into actionable insights.

Core Modules:

* **Insight Engine (IE-200)**: A state-of-the-art summarization and entity extraction tool. It utilizes a custom fine-tuned model for identifying key personnel and financial figures from dense legal and regulatory documents. It can process up to 100 documents per minute, with a 98% extraction accuracy rate.

* **Smart RAG Processor (SRP-300)**: The central Retrieval-Augmented Generation component. Its unique feature is its **adaptive k parameter**; it automatically adjusts the number of context chunks retrieved (\$k\$) based on the complexity score of the input query (from 3 for simple facts up to 7 for complex synthesis).

* **ArXiv Paper Summarizer**: A specialized agent integrated with the SRP-300 that uses the **DuckDuckGo Search** tool to find recent academic papers, then generates a concise, 5-point summary. It is explicitly designed to handle niche topics involving **transformer models** and **graph neural networks (GNNs)**.

Use Cases: Customers in the financial sector use the system for regulatory compliance checks, while the R&D team leverages its multi-source synthesis capability to compare internal research (PDFs) with the latest academic findings (ArXiv) to drive innovation.